ENVIRONMENTAL, OCCUPATIONAL HEALTH & SAFETY MANUAL

FROST LAKE LOGGING LTD

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Purpose:

This guide has been designed to be a practical resource for defining, implementing and monitoring a Safety Program. It is designed to help companies, all levels of supervision and workers to understand what is required to effectively implement an Environmental, Health and Safety Management System and employ effective methods for creating a safety culture at work.

Disclaimer:

This guide has been designed to provide accurate and authoritative information. It is sold with the understanding that the publisher is not engaged in rendering legal or other professional advice. The information included herein represents the opinion of the developer and should be in no way be construed as being either official or unofficial policy of any government body.

Nor can it be assumed that all acceptable safety measures are contained in this reference material, or that the Authority having Jurisdiction for your workplace may require other or additional measures. If there is any conflict between this information and the current Workers Compensation Act, Occupational Health and Safety regulation and related policies, the Act, the Regulation and policies shall take precedence.

When implementing an Environmental Health & Safety Management System, a comprehensive guide can ensure an operation will be attempting to apply “Best Practices”. Providing both Supervision and the workforce with the Rules, Policies and Procedures for safely performing their work processes, this minimizes the potential for incidents, injuries or fatalities.

The information provided in this guide has been produced with the best intention of being researched to meet the latest in standards and regulations. However, application of this information by companies, supervisors and employees is their responsibility. Applying the contents of this manual does not guarantee results, due diligence on the part of the individuals and companies will go a long way to ensure that.

TABLE OF CONTENTS

1.0 Manual Objectives 1
- 1.1 Health and Safety Policy 3
- 1.2 The Health and Safety Accord of the BC Forest Industry 5
- 1.3 Petroleum Industry Guiding Principles for Worker Safety 7

2.0 Environmental, Occupational Health & Safety Management System (EOHSMS) 9
- 2.1 Commitment, Leadership & Participation 9
  - 2.1.1 Management Representatives
  - 2.1.2 Worker Participation
- 2.2 Responsibilities 10
  - 2.2.1 Structure and Responsibilities
    - 2.2.1.1 Principal Contractor
    - 2.2.1.2 Independent Contractor (Employer)
    - 2.2.1.3 Supervisors (Owner/Operator
    - 2.2.1.4 Employee (Worker)
    - 2.2.1.5 Prime Contractors
    - 2.2.1.6 Suppliers
    - 2.2.1.7 Visitors
  - 2.2.2 Contractor Management System
    - 2.2.2.1 Contractor Selection Process
    - 2.2.2.2 Contractor / Consultant Pre-Work & Monitoring Process
    - 2.2.2.3 Contractor / Consultant Responsibilities
    - 2.2.2.4 Contractor / Consultant Standards
    - 2.2.2.5 Annual Review
- 2.3 Hazard and Risk Management 15
- 2.4 Legal and Other Requirements 16
- 2.5 Communication 17
- 2.6 Inspections 20
- 2.7 Accident/Incident Investigations 21
- 2.8 Documentation and Records 22
- 2.9 Training, Awareness and Competence 23
- 2.10 Emergency Preparedness and Response 25
- 2.11 Disability Management 27
  - 2.11.1 Return to Work Program
  - 2.11.2 Responsibilities of Injured Employee
  - 2.11.3 Troubled Employee

2.12 Management Review....28
2.12.1 Review and Continual Improvement
2.12.2 Monitoring and Measurement
2.12.3 Continued Improvement

3.0 General Policies and Procedures....31
3.1 General Rules....31

3.2 Disciplinary Procedure....32
3.2.1 Policy – Progressive Discipline
3.2.2 Positive Discipline Program

3.3 Right to Refuse Unsafe Work....35

3.4 Radio and Cell Phone Procedures....37
3.4.1 Policy on Radio Use
3.4.2 Radio Protocol and Procedures
3.4.3 Cell phone Protocol & Procedures
3.4.3.1 Background
3.4.3.2 Employers Have a Responsibility
3.4.3.3 Cell Phone Procedure
3.4.4 Rules of Road / Radio Calling Procedures

3.5 Impairment on the Job....41

3.6 Working Alone / Man-check Procedure....42
3.6.1 General
3.6.1.1 Machine Operators
3.6.1.2 Supervisors, Mechanics & Lowbed Operators
3.6.1.3 Working Alone or At Night
3.6.2 Man-check System Policy

3.7 De-Energization and Lockout Procedure....44
3.7.1 Electrical, Mechanical, Air, Hydraulic & Physical
3.7.2 Truck Lockout Procedure

3.8 Personal Protective Equipment....46
3.8.1 Safety Headgear (Hard Hat)
3.8.2 HI-VIS Apparel
3.8.3 Gloves
3.8.4 Safety Footwear
3.8.5 Hearing Protection
3.8.6 Eye Protection
3.8.7 Leg Protection Devices
3.8.8 Fire Retardant Clothing
3.8.9 Respiratory Protection

3.9 Policy on Seatbelt Use....50

3.10 Climatic Conditions....51
3.10.1 Cold Stress
3.10.2 Heat Stress
3.10.3 Wind

3.11 Chainsaw Safety....60

3.12 Steep Slope Skidding....61

3.13 Working in Close Proximity....62
3.13.1 Feller Bunchers
3.13.2 Skidders
3.13.3 Processors / Loaders

3.14 Working from an Elevation....63
3.14.1 Ladders

3.15 Bear & Cougar Awareness....65
3.15.1 Bear Safety
3.15.2 Cougar Safety

` 3.16 Firearm Safety....66

3.17 Security....66
3.17.1 Site Security
3.17.2 Equipment Security

4.0 Emergency Response....67

4.1 First Aid....67
4.1.1 Employer Responsibilities
4.1.2 Requirements for Reporting Accidents and Obtaining First Aid Treatment
4.1.3 Serious Injury
4.1.4 First Aid General
4.1.5 First Aid Evacuation
4.1.6 Evacuation by Road or by Air
4.1.7 Fatality

4.2 Spill Contingency Planning....71
4.2.1 Spill Response and Reporting Requirements
4.2.2 Closure Plan

4.3 Fire Management....73
4.3.1 Welding and Burning
4.3.2 Arc Welding
4.3.3 Oxy/Acetylene Welding or Burning
4.3.4 How to Use Your Fire Extinguisher
4.3.5 How to Inspect Your Fire Extinguisher
4.3.6 Types of Fires

4.4 Natural Disasters 80
4.4.1 Landslides/Avalanches
4.3.1.1 Landslides
4.3.1.2 Landslide Safety Assessment
4.4.2 Avalanche Hazards in the Spring

4.5 H_2S Release – Initial Response Strategy 83

5.0 Environmental Standards 85

5.1 Workplace Hazardous Materials Information System (WHMIS) 85

5.2 Transportation of Dangerous Goods (TDG) 86
5.2.1 Overview
5.2.2 Responsibilities
5.2.3 Documentation and Placards

5.3 Forest and Range Practices Act (FRPA) 89
5.3.1 Plans & Maps
5.3.2 Riparian Management Areas
5.3.2.1 Storing Materials and Chemicals
5.3.2.2 Fueling Equipment
Harvesting
5.3.3 Soil Conservation
5.3.3.1 Soil Disturbance
5.3.3.2 Preventing Damage
5.3.4 Handling of Investigations
5.3.5 Due Diligence
5.3.6 Marking Standards, Ribbons and Paint

5.4 Fuel Handling, Transportation and Storage 94
5.4.1 Small Containers < 230 L
5.4.1.1 Design
5.4.1.2 Operations
5.4.1.3 Transportation
5.4.1.4 Documentation & Training
5.4.2 Small TDG Tanks < 450L
5.4.2.1 Design
5.4.2.2 Operations
5.4.2.3 Documentation & Training
5.4.3 Large TDG Tanks > 450L
5.4.3.1 Design
5.4.3.2 Operations
5.4.3.3 Transportation
5.4.3.4 Documentation and Training

6.0 Safe Work Practices 99

6.1 General Safe Work Practices for Workers 99

6.2 Safe Work Practices – Camp 100

6.3 Safe Work Practices – Camp Catering 100

6.4 Safe Work Practices – Barricades 101

6.5 Power Equipment and Tools 102
- 6.5.1 Re-occurring Hazards
- 6.5.2 Safety Guards
- 6.5.3 Suspended Loads
- 6.5.4 Lifting Manually
- 6.5.5 Compressed Air
- 6.5.6 Power Lines
- 6.5.7 Excavations
  - 6.5.7.1 Utility Identification
  - 6.5.7.2 Hand Digging
  - 6.5.7.3 Mechanical Excavation
- 6.5.8 Backfill
- 6.5.9 Hydro-vac
- 6.5.10 Preparation of Right of Ways
- 6.5.11 Traffic Control
- 6.5.12 Compressed Air Tools
- 6.5.13 Small Engine Equipment
- 6.5.14 Rigging
- 6.5.15 Housekeeping

7.0 Harvesting Safe Work Procedures 115

7.1 Standard Operating Procedures (SOP) 116

7.2 Falling SOP 116
- 7.2.1 Preparing to Fall
- 7.2.2 Commencing to Fall
- 7.2.3 Falling Safe Work Practices

7.3 Bucking (SOP) 122
- 7.3.1 Preparing to Buck
- 7.3.2 Commencing to Buck
- 7.3.3 Safe Work Practices

7.4 Mechanized Harvesting Standard Operating Procedures 124
- 7.4.1 Mechanized Harvesting Standards
- 7.4.2 General Start Up
- 7.4.3 Operational Procedures
- 7.4.4 Servicing Machinery

7.4.5 Equipment on Muskeg and Ice Bridges
7.4.6 Mechanized Falling SWP
7.4.7 Skidding (Line/Grapple/Crawler) SWP
7.4.7.1 Skidding – Chokerman SWP
7.4.8 Mechanized Limbing and Bucking SWP

7.5 Loading Operations Standard Operating Procedures 141
7.5.1 Loading - Standard Operating Procedures
7.5.2 Maintenance
7.5.3 Preparing to Load
7.5.4 Loading
7.5.5 Loader – Grapple SWP
7.5.6 Loader - Butt-n-Top/Heel Boom SWP

7.6 Log Hauling, Low-bedding & Hiab Operations 149
7.6.1 General Requirements
7.6.2 Safe Driving
7.6.3 Log Hauling - On the Logging Block
7.6.4 Truck Loading Procedures
7.6.5 Applying Wrappers
7.6.5.1 Definitions
7.6.5.2 General Rules
7.6.5.3 Option One
7.6.5.4 Option Two
7.6.5.5 Option Three
7.6.6 Cut-to-Length (CTL) Safe Loading Procedures
7.6.7 Log Hauling - In the Mill Yard - General
7.6.7.1 Driver's Rights & Responsibilities For Safety
7.6.7.2 Log Yard Unloading Procedures
7.6.7.3 Banding
7.6.7.4 Unwrapping Station Procedures
7.6.7.5 Trailer Loader Safe Work Procedures
7.6.8 Lowbed SWP
7.6.9 Hiab SWP

7.7 Maintenance Safe Work Procedures 166
7.7.1 Maintenance Precautions
7.7.2 Supervisor SWP
7.7.3 Parts Person SWP
7.7.4 Field Mechanic SWP
7.7.5 Truck Mechanic / Servicemen WSP
7.7.6 Mechanics Helper SWP
7.7.7 Welder SWP
7.7.8 Clean Up

7.8 Blow-down Logging Operations 189
7.8.1 Buncher & Grapple Skidder Operators
7.8.2 Hand-bucker/Faller and Line Skidder

7.9 Road & Road Maintenance SOP 190
7.9.1 Building Roads
7.9.2 Logging Right-of-ways
7.9.3 Right-of-ways Landings
7.9.4 Road Construction / Logging General Inspections
7.9.5 Road Construction-Sub-grade Construction
7.9.6 Road Maintenance
7.9.7 Road Deactivation
7.9.8 Crawler Unit SWP
7.9.9 Grader SWP
7.9.10 Loader SWP
7.9.11 Gravel Truck SWP
7.9.12 Packer SWP
7.9.13 Forklift Operator SWP
7.9.14 Excavator SWP
7.9.15 Crane/Pile Driver

7.10 Stream and River Crossings 213
7.10.1 Drainage Structures
7.10.2 Installation of Culverts
7.10.3 Installation of Forest Road Bridges
7.10.3.1 Permanent Bridges
7.10.3.2 Temporary Bridges
7.10.4 Personnel Involved
7.10.4.1 Excavator
7.10.4.2 Chainsaw Operator
7.10.4.3 Gravel Truck
7.10.4.4 Crawler Unit

7.11 Cut-to-Length Operations 221
7.11.1 Harvester
7.11.2 Forwarder
7.11.2.1 Forwarder Safe Work Procedures
7.11.2.2 Forwarder SWP

8.0 Crew Transportation 227

8.1 Crew Buses & Vehicles 227

8.2 All-Terrain Vehicles (ATV) 230
8.2.1 Operating Guidelines
8.2.2 Operating the ATV

8.3 Snowmobiles 232

8.4 Motorboats 234
8.4.1 Prevention & Safety

8.5 Aircraft 235
8.5.1 General
8.5.2 Fixed Wing
8.5.3 Helicopter Safety
8.5.4 Aircraft Emergency Equipment

9.0 Forestry 239

9.1 Slash Burning 239
9.2 Operating Burning Sloop 240

10.0 Camp 241

11.0 Other Reference Material 243

Appendices 245

APPENDIX A Legal Requirements and References

Appendix A1 OH&S Regulations

APPENDIX B Forms

Appendix B1 Pre Work Meeting / Hazard Identification Form(Oil & Gas)
Appendix B2 Safety Meeting / Site Orientation – Forestry Operations
Appendix B3 Accident / Incident Report Form
Appendix B4 Accident / Incident Investigation Form
Appendix B5 Daily Tailgate Meeting Form
Appendix B6 New Worker - Personal Information Record /Orientation Checklist
Appendix B7 Personal Training and Qualifications Record
Appendix B8 Trainee Checklist
Appendix B9 Safety Inspection Report Forms
Appendix B10 Field Level Hazard Assessment Form
Appendix B11 Risk Assessment Form & Protocol
Appendix B12 Example Form for Doing a Hazardous Task Inventory
Appendix B13 Conducting and Testing Emergency Response Procedure (ERP)
Appendix B14 Working Alone Checklist & Form
Appendix B15 First Aid Assessment Checklist
Appendix B16 Air Medi-Vac Information Card
Appendix B17 Emergency Response Procedure & Plan (Blank)
Appendix B18 Emergency Response Phone Numbers
Appendix B19 Spill Report Form
Appendix B20 Frost Lake Logging Ltd. Disciplinary Actions Report
Appendix B21 Corrective Action Log (CAL)
Appendix B22 Contractor Sign In Form

APPENDIX C Policies and Procedures

Appendix C1 Guidelines to Tailgate Safety Meetings
Appendix C2 Inspections Policy and Procedure
Appendix C3 Incident Investigation Policy and Procedure
Appendix C4 Disability Management Policy
Appendix C5 Drug and Alcohol Policy
Appendix C6 Harassment in the Workplace Policy
Appendix C7 Visitor Safety Policy

1.0 MANUAL OBJECTIVES

The objective of this manual is to present the guide for developing a comprehensive Environmental, Occupational Health and Safety Management System (EOHSMS). This framework is based on:

1. WorkSafe BC OH&S Regulation and Act.
2. CSA Standard – Z1000-06 Occupational Health and Safety Management.
3. BCFSC SAFE Company Standards.
4. Petroleum Industry Standards.

This system provides the basic elements for an effective Safety Program that is described in Section 2. Environmental issues are met by implementing the criteria of the Forest and Range Practices Act (FRPA), ISO 14001 and other certification criteria as it applies to the operational perspective of the work force.

While it is true that we cannot control all aspects of the environment in which we operate, we certainly have the ability to control "how" we operate. It is the procedural aspects of risk management that this booklet emphasizes. The need for this emphasis became very evident when an examination of the circumstances involving fatal injuries indicated that in almost all cases safe operating procedures were not followed. The same premise also can be applied to all environmental impacts.

The basic cause of these accidents, and others before and since, is an inadequate awareness of, respect for, and enforcement of safe operating procedures.

An effective EOHSMS enables an organization to manage occupational health and safety issues as an integrated part of its overall business operations. In an integrated system, the health and safety of workers are key concerns in all aspects of the organization's operations, including production, human resources, administration, finance, maintenance, and purchasing.

It is hoped that this program will assist employees in reducing the risks associated with logging and forestry activities by providing basic information that can be used by companies to develop an effective program for their operations.

1.1 FROST LAKE LOGGING LTD. HEALTH & SAFETY POLICY STATEMENT

Frost Lake Logging Ltd. wants it's workplace to be a healthy and safe environment. To achieve this, our Company will establish and maintain an Occupational Health and Safety Program designed to prevent injuries and disease. Our employer is responsible for providing workers with adequate instruction in health and safety and for addressing unsafe situations in a timely, effective manner. All workers and service contractors are required to work safely and to know and follow our Company guidelines for Safe Work Procedures.

Our success in managing safety will be achieved through these beliefs:

- All Accidents are preventable.
- Management is responsible and accountable for preventing injuries.
- Employees have a right to a safe workplace but also a responsibility to work safely.
- Operations will comply with current legislation and regulations.
- Employees have the right and responsibility to refuse unsafe work.
- Employees and Contractors are accountable for following Safe Work Practices.
- Management will regularly review and update procedures.

Success is everyone returning home each day to their families without injury.

Goals
To achieve 'zero' recordable incidents through safe working habits.

Objectives
- Maintain safe, clean working conditions.
- Be cooperative in our Safety Program.
- Abide by and enforce safety rules.
- Promote a genuine interest in safety and health through:
  a. Regular meetings with workers for discussion of Health and Safety matters.
  b. Role modeling of Safe Work Practices.

Roles and Responsibilities
Each employee/supervisor is expected to review and understand this Safety Program before commencing work. Safety incidents or near misses will be reported to Frost Lake Logging's office within 24 hours.

Employer's Responsibilities

- Establishing the Health and Safety Program
- Conducting an annual review in July of each year
- Training supervisors
- Providing a safe and healthy work environment

Supervisors' Responsibilities

- Providing a Health and Safety Orientation to new workers
- Providing ongoing training to workers
- Taking part in inspections and investigations
- Reporting any safety or health hazards
- Correcting unsafe acts and conditions

Workers' Responsibilities

- Learning and following Safe Work Procedures
- Correcting hazards or reporting them to supervisors
- Participating in inspections and investigations where appropriate
- Using Personal Protective Equipment where required
- Helping to create a safe workplace by recommending ways to improve the Health and Safety Program

Scott Kirschke
President

Date:_____

1.2 HEALTH AND SAFETY ACCORD OF THE BRITISH COLUMBIA FOREST INDUSTRY

Our Key Beliefs:

- We believe that all fatalities and injuries are preventable.
- We believe in a culture where the health and safety of all workers is an over-riding priority.
- We believe that excellence in health and safety is important to our long-term success.

Shared Responsibility:

- We are collectively and individually responsible for the safety of all workers and all worksites.
- Individuals must assume responsibility for their own safety and the safety of co-workers by following all safety rules, procedures and practices; by refusing to perform unsafe work; and by taking collective responsibility for the unsafe conduct of others.
- Tenure holders, licensees and Prime Contractors must take a leadership role in ensuring worker health and safety and assuring accountability for safety on the worksite.

Recognition of Safety Performance and Practices:

- The commitment to health and safety is to all workers, not just direct employees. When engaging contractors, sub-contractors and others to provide services, the selection process and administration of contracts will include recognition and support of good Safety Performance and Practices.
- Employers will recognize and support the safety performance of their employees.
- All owners of forested lands, tenure holders and licensees will give weight to the safety record and current practices of companies in the awarding of contracts and in the determination of fees and levies.

Commitment to Training and Supervision:

- We understand the importance of workers being fully prepared for the work they do and the provision of competent supervisors who will insist on and enforce Safe Work Practices. All workers on the worksite must be competent and fully trained and certified for the work they are performing.

Legislation:

- It is understood that the regulatory environment of the Forest Industry can have profound impacts on safety. Accordingly, government ministries and agencies must take into account the importance of health and safety when developing, reviewing and drafting applicable areas of law and regulation.

Continual Improvement:

- We are committed to the on-going improvement of our practices and support efforts to develop and implement new methods, procedures and technologies that have the potential to improve safety.

BC **Forest Safety** Council
Unsafe is Unacceptable

Petroleum Industry Guiding Principles
For Worker Safety

We, the members of the petroleum industry, have a responsibility to protect all workers engaged in its activities from personal injury and health hazards. To meet our responsibility we will operate under the following guiding principles:

RESPONSIBILITY

The operating company, when acting as prime contractor, is responsible for coordination and general supervision of all activities at the worksite, including activities carried out by contractors, subcontractors, service companies and suppliers. While all parties have a responsibility to promote worker safety, the operating company recognizes its leadership role in promoting worker health and safety on the basis that it has the greatest power to influence worksite situations. It is the responsibility of workers and employers to refuse to perform unsafe work practices.

PRIORITY

Activities will be conducted on the basis that safety of all personnel is of vital importance, whether those personnel are employed by an operating company, a contractor, a subcontractor, a service company or a supplier.

RECOGNITION

The process of selecting contractors, subcontractors, service companies and suppliers, and the administration of contracts, will include recognition and support of good safety performance. Support and recognition based on good safety performance will also be provided by all employers to their employees.

IMPROVEMENT

The operating company, in cooperation with service companies within the industry, will promote methods and practices that have potential for improving safety performance.

ENFORM

Wallace E. Baer
President/CEO
Enform

Signed on behalf of the following six sponsoring associations representing the Canadian petroleum industry:

CAGC Canadian Association of Geophysical Contractor

CAODC

CAPP Canadian Association of Petroleum Producers

CEPA Canadian Energy Pipeline Association / Association canadienne de pipelines d'énergie

PSAC Petroleum Services Association of Canada

sepac

Signature _____ **Title** _____

Company _____ **Date** _____

2.0 ENVIRONMENTAL, OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM (EOHSMS)

2.1 COMMITMENT, LEADERSHIP & PARTICIPATION

Commitment, leadership and effective participation are crucial to the success of an EOHSMS.

Management is committed to providing leadership for EOHS and assumes responsibility for the EOHSMS.

This responsibility means management will:

- Establish, actually promote and maintain the EOHSMS.
- Provide appropriate resources to plan, implement, check, review and correct the EOHSMS.
- Define roles, assign responsibilities, establish accountability and delegate authority to implement an effective EOHSMS.
- Ensure workers are consulted and participate in the development of this EOHSMS.

2.1.1 MANAGEMENT REPRESENTATIVES

All Supervisors are deemed representation of Management and as so, are charged with the responsibility to ensure the EOHSMS is established, maintained and reviewed.

2.1.2 WORKER PARTICIPATION

Workers will participate in the EOHSMS through:

- Established workplace Health and Safety Committee and meetings.

- Assisting with inspections, hazard identification and control, incident investigation, audits, job hazard analysis, emergency planning and response and development of operating procedures.

2.2 RESPONSIBILITIES

2.2.1 STRUCTURE AND RESPONSIBILITIES

All groups in the industry - principal contractors, independent contractors, supervisors and employees - share in the overall responsibility for accident prevention. It is important that each have a clear understanding of their respective responsibilities. **Refer to Occupational Health and Safety Regulation (OHSR) Division 3; Sections 115 to 124**.

2.2.1.1 PRINCIPAL CONTRACTOR

Every owner of a workplace must:

a) provide and maintain the owner's land and premises that are being used as a workplace in a manner that ensures the health and safety of persons at or near the workplace, and

b) Give to the Employer or Prime Contractor at the workplace the information known to the Owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the workplace.

The Principal Contractor must ensure the continuing coordination of the Occupational Health and Safety activities for their contractors.
Refer to OHSR Division 3; Sections 115 and 119, and Part 26; Section 26.2.

2.2.1.2 INDEPENDENT CONTRACTOR (EMPLOYER)

The Independent Contractors are Employers in their own right, and are therefore responsible for ensuring effective Accident Prevention Programs are developed and followed by all of their employees. This includes ensuring adequate planning, communication, supervision and training of crewmembers in the safe performance of their jobs. **Refer to OHSR Division 3; Sections 115 to 119 and Part 26; Section 26.2**.

Employer:

- Will ensure the health and safety of all workers working for that employer and any other workers present at the workplace at which that employer's work is being carried out. All work techniques and procedures are designed to reduce risk of injury. Will ensure all workers are given adequate instruction, training, supervision and know their responsibilities.

- Will establish Occupational Health and Safety policies and programs in accordance with the regulations.

- To provide to the Employer's workers the information, instruction, training and supervision necessary to ensure the health and safety of those workers in carrying out their work and to ensure the health and safety of other workers at the workplace.

- To provide and maintain in good condition protective equipment, devices and clothing as required by regulation and ensure that these items are used by the workers.

- To consult and cooperate with the joint committees and worker health and safety representatives for the workplace of the Employer and with Board and Officers of the Board.

- To cooperate with the board, officers of the board and any other person carrying out a duty under the regulations.

2.2.1.3 SUPERVISORS (OWNER/OPERATOR)

The Supervisor (owner/operator) is in charge of implementing all aspects of the program. Their most important responsibilities are to train each crew member in Safe Work Procedures, to develop each crew member's respect for safety, and to continually check work areas to ensure Safe Work Practices are being followed and undue hazards are eliminated. **Refer to OHSR Division 3; Sections 117**.

The Supervisor/foreman:

- Will ensure the health and safety of all workers under the direct supervision of the Supervisor, be knowledgeable about the OH&S Regulation and comply with the regulations and any applicable orders.

- Ensure that employees working under their responsibility are knowledgeable of the proper procedures, and that they follow these procedures where applicable. It is important that each have a clear understanding of their respective responsibilities.

- Is responsible for ensuring effective Accident Prevention Programs are developed and followed by all employees.

- Are to train each crew member in Safe Work Procedures, to develop each crew member's respect for safety, and to continually check work areas to ensure Safe Work Practices are being followed and undue hazards are eliminated.

- Will be responsible for reviewing policy and regulations with employees once a year, and shall ensure that employees understand and observe these at all times.

- Will enforce policies, Safe Work Practices and Occupational Health and Safety Regulation, which apply to the work location for which they are responsible.

- Will ensure that all personnel wear and/or use the correct personal protective equipment in the proper manner.

- Will thoroughly investigate all incidents and/or accidents in a fact-finding, not fault-finding manner to prevent the same or worse from happening again.

- Will ensure that all hazardous conditions receive prompt corrective action.

- Will consult and cooperate with the joint committees and worker health and safety representatives for the workplace of the Employer and with Board and Officers of the Board.

2.2.1.4 EMPLOYEE (WORKER)

Individuals must recognize and accept responsibility for their own safety and that of their fellow workers. **Refer to OHSR Division 3; Section 116**.

This includes the responsibility to report to work in good physical and mental condition, be constantly aware of hazards, follow Safe Work Practices at all times, and promptly report any injury or incident so that proper treatment can be rendered and corrective action can be taken.

If in doubt regarding a job procedure or the safety involved, consult with your Supervisor before proceeding with a particular task.

New employees at the time of induction shall be made aware of the Company's General Policy.

Worker:

- Will wear appropriate protective equipment, which shall be provided for specific hazards, on the job. This equipment shall be maintained in good condition.
- Shall be knowledgeable of, and comply with all Safe Work Procedures, and shall contribute to the ongoing maintenance of a safe working environment.
- Must recognize and accept responsibility for his or her own safety and that of their fellow workers.
- Will not to engage in horseplay, verbal abuse or acts that may endanger fellow workers and management staff.
- Ensure that the worker's ability to work without risk to their health or safety, or the health and safety of any other person, is not impaired by alcohol, drugs or any other causes.
- Will report to your Supervisor or Employer any contravention of the regulations, absence of or defects in any protective equipment, device or clothing, or the existence of any other hazard, that the worker considers is likely to endanger the worker or any other person.
- Shall know and abide by the following regulations and safe working procedures. These are designed for the protection of all employees and for efficient operation.
- Will respect the right of other employees to a smoke-free environment.
- Will understand that it is their responsibility to refuse unsafe work conditions. There are no repercussions for refusing unsafe work.

2.2.1.5 PRIME CONTRACTORS

The Prime Contractor of a multiple-employer workplace must:

- Ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and
- Do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with this Part and the regulations in respect of the workplace.

Each employer of workers at a multiple-employer workplace must give to the Prime Contractor the name of the person the Employer has designated to supervise the Employer's workers at that workplace.

2.2.1.6 SUPPLIERS

General duties of suppliers

Every supplier must:

- Ensure that any tool, equipment, machine or device, or any biological, chemical or physical agent, supplied by the supplier is safe when used in accordance with the directions provided by the supplier and complies with this Part and the regulations.

- Provide directions respecting the safe use of any tool, equipment, machine or device, or any biological, chemical or physical agent, that is obtained from the supplier to be used at a workplace by workers.

- Ensure that any biological, chemical or physical agent supplied by the supplier is labeled in accordance with the applicable federal and provincial enactments.

- If the supplier has responsibility under a leasing agreement to maintain any tool, equipment, machine, device or other thing, maintain it in safe condition and in compliance with this Part, the regulations and any applicable orders.

2.2.1.7 VISITORS

While visiting any contractor's worksite visitors must:

- Check in with supervision to ensure they receive safety orientation and are aware of all safety requirements
- Abide by all posted rules
- Wear required PPE

2.2.2 CONTRACTOR MANAGEMENT SYSTEM

2.2.2.1 CONTRACTOR SELECTION PROCESS

- Contractor will submit a resume of their safety status regarding, injury statistics, safety record and WSBC orders prior to hiring.
- Frost Lake Logging Ltd. will check the WSBC accounts record prior to hiring.
- The Contractor must be SAFE Companies certified or registered.
- The Contractor will sign on to the Frost Lake Logging Ltd. OH&S program prior to starting work.
- Contractor will attend the same orientation process as the employees of Frost Lake Logging Ltd.

2.2.2.2 CONTRACTOR/CONSULTANT PRE-WORK AND MONITORING PROCESS

- Contractor will attend all pre-work functions and operate as all employees of Frost Lake Logging Ltd. are required to do.
- The Frost Lake Logging Ltd. Supervisor will observe, record and evaluate the performance of the Contractor.

2.2.2.3 CONTRACTOR/CONSULTANT RESPONSIBILITIES

- Contractor will appoint attend all safety meeting held by Frost Lake Logging Ltd...
- Contractor will notify Frost Lake Logging Ltd. Supervisor of all incident/near-misses that occur.
- Contractor will adhere to all safety requirements of Frost Lake Logging Ltd. Safety Program.

2.2.2.4 CONTRACTOR/CONSULTANT STANDARDS

- Work to minimize Time Loss Accidents
- Address WSBC orders immediately.
- Be up for review if Contractor receives WSBC sanctions.
- Be up for review upon incurring a fatality
- Be up for review if there are too many outstanding CAL items.

2.2.2.5 ANNUAL REVIEW

The management of Frost Lake Logging Ltd. will review the record of the Contractor at the end of the season. Above items summarized in an annual review.Any issues that arise from this will be discussed at the seasonal meetings as well as a meeting with Management.

2.3 HAZARD AND RISK MANAGEMENT

A “Hazard” is defined as “any source having the ability to cause harm or damage, or a situation which has the potential to cause harm or damage.”

Risk Management is measuring and developing controls to avoid the identified hazard. The following segments define how this operation develops Risk Management.

From prior assessment it has been determined that all facets of work that is covered in this manual experience a moderately high level of hazard exposure. Main injury exposure comes from accessing, exiting and servicing of this equipment. All work procedures address these concerns. Any new processes will be assessed and work procedures will be developed to address hazards identified.

Thorough planning can go a long way towards minimizing risk once work gets underway. Anticipate problems of terrain and seasonal weather problems. Before work begins, ambulance and emergency response procedures must be organized. **Refer to OHSR Part 3; Sections 3.14 to 3.21**.

SAFETY PLANNING

Pre-work Hazard Identification

- Prior to commencing work in a new area, a formal inspection of the area will be done to identify local hazards and conditions. This inspection will be documented with hazards noted.
- A pre-work meeting with other employees (if applicable) will be conducted and the results of the inspection reviewed. This pre-work meeting will be documented and available for viewing at the request of WorkSafe BC (WSBC). The pre-work checklist is located in **Appendix B-B1 – Pre-Work Safety Meeting / Hazard Identification Form**
- Other hazards noted in the work area or access to the work area will be reported to a Supervisor immediately.

Periodic Hazard Monitoring

- Regular inspections of the work area will be conducted in order to monitor existing or new hazards.
- Some activities, such as falling, require planning on a daily basis to ensure changing conditions are considered.
- The time of year in which the work takes place must also be considered, as dust, rain, snow and other weather conditions affect the safety of workers.
- Emergency procedures, including use of helicopters and ground transportation for evacuation, must be available and all employees must be instructed in the methods to be used to transport injured workers. The emergency transportation vehicle must be kept available at all times.
- The workers must know the location of first aid equipment and the first aid attendant.
- Where conditions change daily (i.e. weather, proximity to other workers, etc.) planning must be done each day before the work begins.

2.4 LEGAL AND OTHER REQUIREMENTS

Access to Legislation and Regulations

Employees will have access to legislation and regulation through the following methods:

1. Access on home computer:
   - Occupational Health and Safety (OSH) Act and Regulations http://www2.worksafebc.com/publications/OHSRegulation/Home.asp
   - Workplace Hazardous Materials Information System (WHMIS) (enforced under Federal and Provincial Legislation – see link for explanation) http://www.worksafebc.com/publications/health_and_safety/whmis/pub_40_20_20_20.asp
   - TDG Act and Regulations http://www.tc.gc.ca/tdg/menu.htm
2. Other materials that can be referenced are kept on site in the ETV Unit:
   - Material Data Safety Sheets (MSDS)
3. The following will be kept in the office for the workers to access:
   - Occupational Health and Safety (OH&S) Act and Regulations
   - Workplace Hazardous Materials Information System (WHMIS)
   - TDG Act and Regulations

Incorporation of legislation and regulation into policies and SOP's

When developing any new SOP or safety policy, the Company will ensure that the policy has considered all legal and regulatory requirements.

Updating employees regarding changes to legislation or regulation

Management will be responsible for staying current with all changes to legal requirements and passing all relevant information on to employees. Additional employee training will be scheduled if necessary.

2.5 COMMUNICATION

SCOPE
This section outlines how communication about safety is conducted within Frost Lake Logging Ltd. operations.

Formal safety meetings will be held at least once per month. Tailgate meetings will be conducted as the need arises such as after a near miss incident or a serious accident. Pre-work safety meetings will be held at the start of each new harvesting and/or road construction operation. All of these safety meetings must be formally documented and turned into the office with the employee time reports.

Communication between management and workers is done through (A) Meetings, and (B) Other.

(A) Safety Meetings

1. Seasonal startup General Safety Meeting.
2. Safety/pre-work meeting.
3. Tailgate safety meetings. **See Appendix B 5 Tailgate Safety Meeting Form.**
4. Shop/Office Safety Meetings
5. Management safety meetings.
6. **Joint Occupational Health & Safety Committee** - Safety Steering Committee Meetings.

1. General Safety Meeting

- Well be held at the start of the summer and winter seasons and/or any other significant event.
- Promotes and reviews changes in health and Safety Program.
- Reviews and gets worker input into safety training programs.
- Reviews first aid attendants and equipment requirements.
- Attended by all workers and management.
- Reviews safety trends and statistics.
- Encourages worker input.
- Develops action plans for suggestions and ideas.
- Documented on general safety meeting form.

2. Safety pre-work at the start of new operations

- Includes all safety issues pertinent to the work site.
- Discusses any hazards that are specific to the new operations and reviews the Hazard Assessment form.
- Reviews recent company incidents, accidents, and near misses from bush, roads, and scales, and road marshal program.
- Held at the start of each new work site or monthly for large work sites.
- Attended by all workers on site.
- Documented on the safety meeting/pre-work form.

3. Tailgate Safety Meeting

- Promote employee awareness of occupational health, safety and wellness.
- Performed every day.
- Used when a new worker comes on site.
- Used when a new hazard develops.
- Used for temporary workers that require specific instructions, i.e. fallers.
- Documented on tailgate safety meeting form.

4. Management Safety Meetings

- Held by management to discuss issues pertaining to safety.
- Develops action plans and timelines for actions.
- Reviews accident investigations and near misses.
- Documented in the management meeting book.

5. Shop/Office Safety Committee Meetings

- Held monthly.
- To discuss safety issues with worker representatives.
- To address any crew safety concerns.
- Documented in the management/safety committee meeting book.

6. JOH&S - Safety Steering Committee Meetings

- Held quarterly or as required.
- To discuss safety issues with worker representatives.
- To address any crew safety concerns.
- Documented in the management/safety committee meeting book.

(B) OTHER

1. Bulletin board at shop.
2. Monthly newsletter.
3. Handouts.

1. Bulletin Board at Shop/Office

- Located in lunch room at shop in town.
- Contains safety information, i.e.: hazard alerts, safety info, minutes of tailgate safety meetings, etc.

2. Monthly Newsletter

- Contains safety information, i.e.: hazard alerts, safety info.

3. Handouts

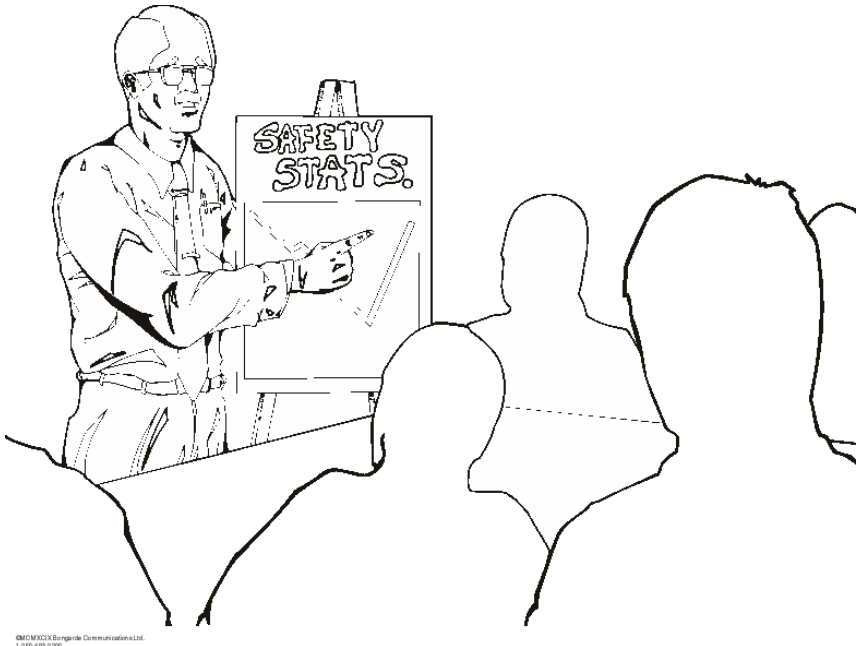
- Put in Company and worker vehicles.
- Hazard alerts or bulletins that management feels are important or affect crew safety.

Documentation of Safety Meetings:

- Minutes will be taken at all of the safety meetings in order to keep a written record of all safety items and assigned actions that arise during the meting.
- The meeting minutes are to be distributed to attendees and other relevant individuals.

Follow-up of Actions from Safety Meetings:

- All actions that are assigned in the safety meetings are to be documented in the safety meeting minutes and tracked using a tracking sheet.
- All actions will be assigned to an individual, or a group of individuals, and will be assigned a completion date.
- All actions will be reviewed at the following meeting to determine the progress of the action, and any updates or changes that need to be made to action items will be addressed at that time.
- All changes and updates to the action items will be documented at the safety meetings.
- It is the responsibility of the Supervisor to ensure that it is completed within the designated timeframe.



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2.6 INSPECTIONS

All work locations will have a minimum of a monthly inspection according to Inspection Policy **(Appendix C-C2).** This inspection will be performed according to procedure. Appropriate inspection checklists **(Appendix B-B9)** will be used to document these inspections.

Regular safety inspections are a means of forcing a critical look around for hazards that might tend to be overlooked in your day-to-day activities. **Refer to OHSR Division 3; Sections 178 to 186.**

Inspections should focus on condition of tools, machinery, equipment, work methods, practices and on compliance with safe operating procedures **(Appendix B-B9)**.

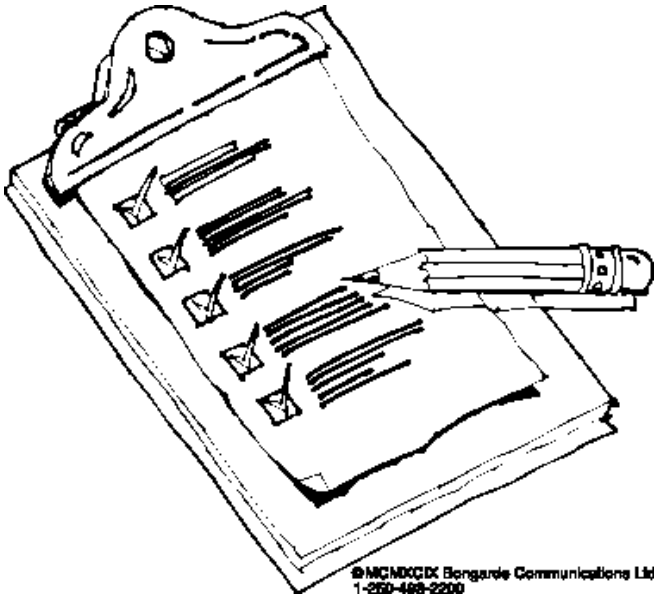
Problems identified should have the required corrective action noted, as well as who will take the action and when it will be done.

Equipment, Maintenance and Testing

On a regular basis, equipment and supplies will be maintained and tested. These items will include, when applicable:

- crew transportation vehicles
- ATV
- ETV
- fire equipment
- tools
- first aid supplies
- Shop
- mobile equipment

See Appendix B - B9 - Safety Inspection Reports for detailed inspection checklists



2.7 ACCIDENT / INCIDENT INVESTIGATIONS

All accidents and incidents including "near-misses" must be reported and a follow-up investigation must be carried out. The investigation should be conducted by person(s) knowledgeable in the type of work involved and conducted in an orderly sequence. Senior Management must be notified. **Refer to Incident Policy/Procedure (Appendix C-C3)**.

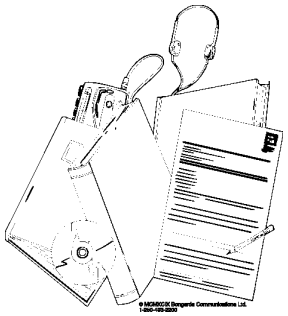
Incident / Accident Report and Investigation forms **(Appendix B-B3 and B4)** are to be used to document these events.

- Accident will be reported to Frost Lake Logging's Office within 24 hours and assistance will be provided in completing an accident investigation. Recommendations and follow-up will be implemented in a timely fashion as outlined in the accident report.
- Near miss incidents will also be reported and an investigation completed.

These are opportunities to learn from mistakes:

- All employees are to report to Supervisor, incidents requiring first aid treatment or medical treatment from a doctor, incidents involving equipment damage and any other incidents, which could have caused serious injury and/or damage to Company equipment as soon as possible.
- Accident investigation forms are filled in by the Supervisor in charge of the operation where the incident/accident occurred.
- Establish the sequence of events leading to the accident.
- Identify all contributing factors in the sequence of events.
- Develop practical recommendations, which will eliminate or minimize the risk of recurrence.
- Implement the recommendations.
- Follow-up to ensure corrective action has been taken.
- Forward to Joint Safety Committees.
- Any near miss incidents are to be reported immediately.

Refer to OHSR Division 10; Sections 172 to 177.



2.8 DOCUMENTATION AND RECORDS

Documentation is maintained in order to implement the EOHSMS effectively and assess conformance with requirements of the standards.

Documents and Records tracked by this organization are (Typical Inputs -not limited to):

DOCUMENTATION & RECORDS	APPLICATION	WHERE FOUND
Health and Safety Program & Policy	Safety program gives guidance to application of safety process.	Posted in main office, worksite, with supervisor.
BCFSC Standards	Guidelines for implementation of safety program	With Safety manual, workers' handbook and posted at the Company office
SOPs, SWPs	Workers procedures for safe application of their job	In Company manual, and in equipment
Emergency Response, Assessments and Drills	Guidelines for effective response to emergency situations	In Company manual
OH&S inspection reports	Monthly documented review of work site	Filed with head office
Safety Meetings	Regular communication with workers concerning safety issues	Filed with head office, and posted
Incident/Near-miss, Injury Reports	Root cause investigation defining corrective action	Filed with head office, and posted
Orientation – New Hire, Contractors, Visitors	New Hires, Contractors and Visitors introduction to operation and safety aspects.	Filed with head office
Training records	Identified training	Filed with head office
Management Meetings and Reviews	Systematic review by management of effectiveness of safety program	Filed with head office
OH&S management system audit reports	Safe Companies Review of program	Filed with head office
Equipment Maintenance Logs/Reports	All equipment must be maintained in safe operating condition. Documentation of repairs and services is required and to that end each piece of equipment should have a system that readily informs the operator of the condition of that unit. This can be an equipment log book, mechanics service logs or management prevention maintenance tracking system. **Refer to OHSR Part 16, Sections 16.3**.	Maintained on equipment, with mechanic or kept in mobile shop.
Hazard identification, risk assessment and risk control records	Required review of new work function or equipment to establish Safe Work Procedures.	Added to Safety manual for reference and training,
PPE issues and PPE maintenance reports	If required, documentation of PPE maintenance programs.	Filed with head office
Hearing Tests	Annually performed	Filed with head office
WHMIS/MSDS Sheets	MSDS sheets required on worksite	Filed with head office, on site
Legislative & Jurisdictional information	Information to readily available for worker reference	With Safety Manual and in office
Corrective Acton Log (CAL)	Compilation of all action items generated from multiple sources.	Updated monthly and distributed.
Contractor Selection Checklist	Fill in at time of hire	File at office

2.9 TRAINING, AWARENESS AND COMPETENCE

Don't assume that new crew members are competent just because they have indicated that they have the experience.

Office staff will initially screen applicants for a position and take the time to check employment references to confirm desired experience and document it.

Training programs begin with orienting all new employees on their first shift at work. **Refer to OHSR Part 26; Section 26.3**.

New Employee and Contractor Orientation

New employees and contractors should receive a copy of this manual. Supervisors will perform a safety orientation that includes the items on the "Safety Induction" list below and a review of the relevant contents and intent of this manual.
Supervisors will hold regular safety meetings every month. All employees and contractors are expected to attend.

When orienting new or regular employees to a new job:

- Begin by demonstrating the job to them - one step at a time
- Let them show you they understand the job
- Turn the trainees loose gradually
- Check back frequently
- Keep training records for future reference
  (Appendix B-B6)

Anticipate the training needs of regular crew members. Training programs for experienced workers aren't intended to tell them anything they didn't already know - but to maintain a high level of awareness **(Appendix B-B6 & Appendix B-B7).**

1. <u>The training program is designed:</u>
   a) To verify competence of worker to operate specific equipment **(Appendix B-B6 & B7).**
   b) To ensure workers are aware of:
      i) Application of EOHSMS program.
      ii) Their OHS rights and responsibilities.
      iii) The importance of compliance and potential consequences of non-compliance.

Frost Lake Logging's Training Objectives are:

- Frost Lake Logging will provide opportunities for the training and education necessary to promote a safe work environment for the employees and subcontractors.
- Frost Lake Logging will ensure that each worker is educated and trained in a manner that gives them the ability to meet minor emergencies successfully.

Component of Frost Lake Logging's Training Program include:

1. New employees:

   - Will review a copy of Frost Lake Logging's Health and Safety Policy.
   - Will review a copy of all applicable Safe Work Procedures, Hazard Prevention, Emergency Preparedness Procedures, Emergency Response Procedures and Administrative Procedures.
   - A Supervisor will spend individual time with the new worker to ensure that all aspects of the Occupational Health and Safety Program are fully understood.

2. Educational and training courses/resources offered to employees include (not limited to):

   - Orientation and induction with Safe Work Procedures when the employee's job function is changed.
   - WHMIS (Workplace Hazardous Materials Information System) training and access to MSDS's.
   - TDG (Transportation of Dangerous Goods) training.
   - Level 1 First Aid and Transportation Endorsement.
   - S100 Fire Management

3. Refresher courses:

   - Refresher courses will be offered as necessary to aid employees in keeping current in matters of safety.

4. Field training sessions:

   - Pre-work and Tailgate safety meetings will be conducted with the employees to discuss pertinent safety matters
   - Demonstrations and drills will be conducted to educate the employees to proper safety standards and to test emergency response procedures.

2.10 EMERGENCY PREPAREDNESS AND RESPONSE

Established First Aid and Emergency Procedures

- First Aid and First Aid Attendants will be on site as required by the WSBC. See Emergency Preparedness (B – B13), Working Alone Checklist (B B14) First Aid Attendants and First Aid Kit Requirements B – B 15) for detailed First Aid requirements.

- The first aid personnel will be identified to all employees during the pre-work meeting.

- Serious Injury procedures will be followed as per Appendix B
  - B 17 Emergency Response Plan and Procedure. and
  - B 16 Air Medi-vac Information

- Emergency first aids and evacuations will follow the procedures in Appendix B –
  - B 17 Emergency Response Procedures
  - B 16 Air Medi-vac Information Cards and Information

- Fatality procedures will be as follows:
  - Correct any immediate unsafe conditions that may cause dangers to yourself or others.
  - Leave the accident site exactly as it is if possible. (for WSBC and RCMP)
  - The First Aid Attendant will take care of the accident scene and attend to the care of the body.
  - Notify Company representatives immediately.
  - Ensure a Doctor and/or ambulance has been called.
  - Notify the RCMP – 911 and WSBC immediately if Company rep has not already done so.
  - DO NOT NAME THE VICTIM OVER THE RADIO.

Fire Procedures

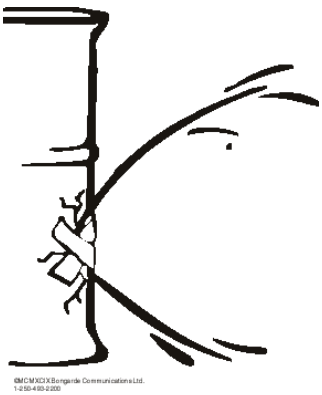
- Fire equipment and personnel certification will be on site as required by WSBC and the MOF.

- Fire reporting and response procedures will be followed as per Appendix B
  B 13 Conducting & Testing Emergency Response Procedure (Response Drill for Medical, Fire and Hazardous Spills) and Apollo Forest Products Ltd. annual Wildfire Plan.

Hazardous Spill Response Procedures

- Spill containment equipment and personnel training will be present on site as required by Apollo Forest Products Ltd. Environmental Management System. Spill Kits will also contain the necessary Personal Protective Equipment needed for petroleum and antifreeze related spills.

- Hazardous material spill response procedures will be followed as per B – B13 Conducting & Testing Emergency Response Procedure (ERP) (Response Drill for Medical, Fire & Hazardous Spill Response) and Apollo Forest Products Ltd current Spill Prevention and Response Plan.



2.11 DISABILITY MANAGMENT

Frost Lake Loggings policy regarding Injury Management / Return to work is as follows:

- All employees have the right to return to their jobs following an injury or illness if the employee is able to perform the duties of that job.
- This policy applies whether the illness or injury suffered by an employee is occupational or non-occupational in nature.
- No employee will be allowed to return to any type of work if there is a reasonable belief that the employee or others are put at risk of injury, or if the employee's eventual recovery will be delayed as a result.
- Successful reintegration of the employee is based on a cooperative approach developed by the employee, the employer, the employee's representatives and other stakeholders.
- Company will designate an Injury Management (IM) Coordinator to oversee coordination and overseeing of the Company IM Program. All employees will be made aware of whom this individual is.

2.11.1 RETURN TO WORK POLICY

The Company will make every reasonable effort to ensure employees who are disabled as a result of injury or illness have the opportunity to regain their productive potential and maintain their self esteem through reintegration into the work force in as timely manner as their conditions permit.

2.11.2 RESPONSIBILITIES OF INJURED EMPLOYEE

- Reports the injury or illness as soon as possible to their direct Supervisor.
- Provides appropriate medical information as requested by IM Coordinator to assist in identifying personal limitations.
- Advise IM Coordinator, Supervisor and Management immediately of any change in circumstances that may affect the return-to-work process.
- Attends all medical and rehabilitation appointments and undertakes graduated or modified return to work activities that have been agreed as appropriate by medical resources.

2.11.3 TROUBLED EMPLOYEE

Where an employee’s work performance begins to deteriorate unexpectedly and there is a possibility of abuse of alcohol/drugs or other factors, such as family problems contributing to the deterioration, the situation should be dealt with before it becomes intolerable.

The Employer should offer this assistance to an employee on a confidential basis.

Most communities have counseling services available that can determine the problem and refer the individual to the appropriate help.

Such individuals should be encouraged to seek, or be referred to, these services.

2.12 MANAGEMENT REVIEW

2.12.1 REVIEW AND CONTINUAL IMPROVEMENT

Senior Management shall review the organization's EOHSMS during Spring Breakup to ensure its continual suitability, adequacy and effectiveness. This review shall include an assessment of the need for changes to the EOHSMS, including OHS Policy and Objectives.

This review should:

- Evaluate the ability of the EOHSMS to meet the overall needs of the organization and its stakeholders including workers and regulatory authorities.
- Evaluate the effectiveness of the EOHSMS in reducing work related injuries and incidents.
- Identify what actions are needed to remedy any deficiencies.
- Provide feedback and establish EOHSMS priorities.
- Evaluate previous management reviews for effectiveness.

2.12.2 MONITORING AND MEASUREMENT

In order to be able to assess the EOHSMS, there must be areas monitored and measured. These results will provide the necessary feedback for improvement.

Activities to be monitored and measured for annual review are:

Proactive Monitoring

a) Implementation of corrective action plans
b) OHS objectives and targets
c) Assessments of training
d) Inspections
e) Work environment, activities
f) Worker health
g) Compliance with OH&S Regulations

Reactive Monitoring

a) Trends in work related injuries and incidents
b) Frequency and severity of injuries and incidents
c) Worker Return to Work program
d) Property/equipment loss
e) Content and quality of related records

2.12.3 CONTINUED IMPROVEMENT

Opportunities for continued improvement should be sought in:

- OH&S Policy, objectives and targets.
- Results of Hazard and Risk Identification & Assessment.
- Results of monitoring and measurement.
- Reporting of incidents.
- Outcomes of management review.
- Corrective and preventative actions.
- Recommendations for improvement from workers.
- Changes in regulatory requirements.
- Results of audits.

3.0 GENERAL POLICIES AND PROCEDURES

3.1 GENERAL RULES

Violations of the following regulations are subject to disciplinary action, up to and including Termination.

1. Theft or removal from the premises, of any Company, or worker property, without proper authorization.
2. Intentionally misusing, destroying or damaging any Company or Worker property.
3. Use of chemical – alcoholic beverage, non-medical drugs, illegal drugs, non-prescribed drugs, non-dispensed drugs – or abuse of prescribed drugs during work hours, or on Company property.
4. Unauthorized possession of firearms or explosives on Company property.
5. Insubordination. Interfering or refusing to cooperate with Supervisors or workers in the performance of their duties.
6. Absent without leave, tardiness, excessive absenteeism or leaving the site during work shift without permission or notification.
7. Provoking or instigating a fight, during working hours, on Company property.
8. Reporting to work while under the influence of alcohol and/or drugs. Possessing alcohol or non-medical drugs while on Company work site.
9. Violating a safety rule or regulation
10. Sleeping on the job.
11. Operations, use or possession of machines, tools or equipment to which the worker has not been assigned or trained on.
12. Performing a job other than assigned job without notification or authorization.
13. Horseplay is not permitted anywhere on the premises.

Note: Numerical sequence does not necessarily denote degree of violation or infraction.

3.2 DISCIPLINARY PROCEDURE

3.2.1 POLICY - PROGRESSIVE DISCIPLINE

The Company, in order to maintain high standards for the workplace and regulatory adherence, must ensure that all employees are aware of and following policy and procedures in place. Those individuals whose actions contravene Company policy will be disciplined using the Company Discipline Policy.

Employees (logging, log hauling or other) for the Company are subject to the Policies and Company Discipline Policy.

For most worker's, Counseling and coaching from their Supervisors is usually enough to keep their performance on track. However, for certain incidents, or for repeated violations of Company Policies, a more formalized procedure must be followed. Disciplinary action is intended to correct behavior.

It is administered essentially to improve performance when other normal methods have failed. The principle of progressive discipline allows a worker the opportunity to improve their performance and also establish a clear understanding with their Supervisor as to the standards of performance required.

It is very important to understand that the following steps are a guideline only. The various steps of discipline may not apply in a "step-by-step" fashion. When determining the appropriate discipline for any conduct, the Company will carefully evaluate all the circumstances involved, including worker's previous disciplinary record. Certain workplace conducts under certain circumstances can justify the imposition of a more serious penalty than that previously received.

3.2.2 POSITIVE DISCIPLINE PROGRAM

We have established guidelines for behaviour, which are designed to assist employees in working harmoniously and safely as a team. We cannot list all possible problems that may come up, and each case is considered with regard to its specific circumstances. Most of the guidelines are outlined in this manual. Others not listed may be considered common sense or normal behaviour. They would include such items as, but not limited to, coming to work under the influence of drugs or alcohol, threatening or fighting with another employee, or stealing property from another employee or the plant.

It is the Company’s position to look upon discipline as a means of correcting behaviour. As such, we comply with the concept of progressive discipline. In most instances, discussion with your Supervisor will correct the behaviour. Based on the severity of the incident, the following will occur:

STEP #1 - VERBAL WARNING

For repeat minor offences or for infractions of a more serious nature.

A - Supervisor is to inform the employee of the problem.

B - Supervisor is to explain and ensure that the employee understands the problem and what is required to correct it.

C -Supervisor is to document, file, and copy to employee.

STEP #2 – 2nd VERBAL WARNING

STEP #3 - WRITTEN WARNING

For a serious violation of Company policy, or for a repetition of an offence with prior discipline imposed, which will ultimately result in suspension or discharge should the performance not improve.

A - Employee is to receive a formal written warning that his/her work habit is incorrect.

B - Supervisor is to explain and ensure that the employee understands the problem and what is required to correct it.

C - Employee signature is required, to be documented and filed.

STEP #4 - SUSPENSION

Under normal circumstances, there should be two Verbal and one Written Warning on file before advancing to a suspension. For a serious violation of Company policy, or for a repetition of an offence with prior discipline imposed, which will result in discharge should the performance not improve. Generally a one-day suspension, however, depending on the violation, a more severe suspension or termination may be imposed.

A - Employee is to receive a written suspension.

B - Supervisor is to explain the seriousness of the problem and to ensure the employee knows how to correct it.

C - Supervisor is to counsel the employee regarding any personal problems, which may be affecting his/her work performance. Help or assistance is to be offered.

D - Employee's signature is required, to be documented, and filed.

STEP #5 - TERMINATION

Previous attempts at corrective discipline have not been successful in improving an employee's performance. As a result, the Company is severing the employment relationship. Termination is likely, even with no prior record, for an incident of theft, threats or acts of violence, assaulting a Supervisor, severe insubordination, or other serious offences.

Supervisor must consult with manager before discharging any employee in step #5.

VIOLATIONS WARRANTING DISCIPLINE

These violations are separated into 3 groups to be used as a general guideline as to the degree of discipline required.

Group #1:

A violation in Group #1 will result in normal disciplinary procedures:

(a) Late for work
(b) Failure to maintain work quality standards
(c) Non-productive work habits
(d) Unsafe acts or violation of safety regulations
(e) Personal work on Company time

Group #2:

A violation in Group #2 will result in an immediate suspension from one to three days. A second offence could result in worker being discharged.

(a) Reporting to work with physical or mental facilities impaired by alcohol or drugs.
(b) Threatening other workers for any reason.
(c) Insubordination.
(d) AWOL: Absence Without Leave.

Group #3:

A violation in Group #3 is grounds for immediate dismissal.

(a) Absence without notice for more than 3 days.
(b) Fighting on Company property.
(c) Theft of Company or other workers' property.
(d) Willful damage to Company property or property of fellow workers.
(e) Consumption of alcohol during working hours on Company property.
(f) Use of drugs for other than medical purposes on Company property.
(g) Possession of illegal weapons or explosives on Company property.
(h) Willfully falsifying application for employment or other data requested by the Company.
(I) Instigating or causing an illegal work stoppage.

SUMMARY

These are only some of the common violations. Others may occur and will have to be dealt with as relative to these guidelines as possible.

The Supervisor has significant discretionary power. In some cases he may feel harsher action is necessary than that stated in this disciplinary procedure. The Supervisor must, however, ensure consistent discretionary decisions.

No record of discipline against a worker for minor offences should be held indefinitely. The worker should have the opportunity through continued good performance to clear his record.

Where a worker receives no written discipline for a period of one year, all warning slips for Group #1 type violations shall be kept on file for record purposes only and will not be used in future disciplinary action.

3.3 RIGHT TO REFUSE UNSAFE WORK

BILL #14 - REFUSAL OF UNSAFE WORK

Workers' Compensation Board (Occupational Health & Safety) Amendment Act - BILL 14

PART 3: RIGHTS AND RESPONSIBILITIES REFUSAL OF UNSAFE WORK

Procedure for refusal OH&S Regulation 3.12

(1) A person must not carry out or cause to be carried out any work process or operate or cause to be operated any tool, appliance or equipment if that person has reasonable cause to believe that to do so would create an undue hazard to the health and safety of any person.

(2) A worker who refuses to carry out a work process or operate a tool, appliance or equipment pursuant to subsection (1) must immediately report the circumstances of the unsafe condition to his or her Supervisor or Employer.

(3) A Supervisor or Employer receiving a report made under subsection (2) must immediately investigate the matter and
   (a) Ensure that any unsafe condition is remedied without delay, or
   (b) If in his or her opinion the report is not valid, must so inform the person who made the report.

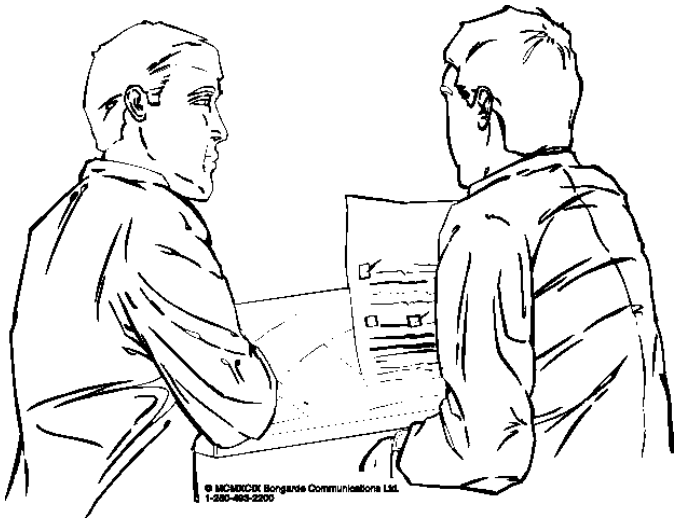
(4) If the procedure under subsection (3) does not resolve the matter and the worker continues to refuse to carry out the work process or operate the tool, appliance or equipment, the Supervisor or Employer must investigate the matter in the presence of the worker who made the report and in the presence of
   (a) A worker member of the occupational health and safety committee,
   (b) A worker who is selected by a trade union representing the worker, or
   (c) If there is no occupational health and safety committee or the worker is not represented by a trade union, any other reasonably available worker selected by the worker.

(5) If the investigation under subsection (4) does not resolve the matter and the worker continues to refuse to carry out the work process or operate the tool, appliance or equipment, either the Supervisor, or the Employer, and the worker must immediately notify an officer, who must investigate the matter without undue delay and issue whatever orders are deemed necessary.

Non discriminatory action OH&S Regulation Part 3, Section 3.13.

(1) A worker must not be subject to discriminatory action as defined in section 150 or Part 3 of the Workers Compensation Act because the worker has acted in compliance with section 3.12 or with an order made by an officer.
(2) Temporary assignment to alternative work at no loss in pay to the worker until the matter in Section 3.12 is resolved is deemed not to constitute discriminatory action.

Note: The prohibition against discriminatory action is established in the **Workers Compensation Act Part 3, Sections 150 through 153.**



3.4 RADIO/CELLPHONE PROCEDURES

3.4.1 POLICY ON RADIO USE

1. Radio frequency usage is coordinated by the principal Contractor (timber owner).

2. Use only those frequencies assigned to an area or road.

3. Radio use is restricted to calling kilometer location and important messages.

4. Communication systems policy includes 2 way radios, intercom systems, etc. Please follow proper procedures - be polite, do not interrupt when others are using the radio. Be specific and timely in your communication.

5. If you think your message or transmission has been blocked, repeat your message, or ask for confirmation from another radio-equipped vehicle.

6. Location by kilometer and road name is the only method to be used for calling location. Do not use geographical markers or other nicknames for location.

7. When stopping on, leaving or re-entering a haul road, advise others of your status and location.

8. Use logging block or work channel for other communications.

9. Misuse includes idle chatter not relating to business, and the use of profane, obscene words and/or language is unacceptable!

10. Any profane or obscene language used by an employee or Contractor will result in action being taken by Department of Transportation towards the violator.

11. There are stiff penalties imposed by Canadian Regulation for misuse of transmitted communications, therefore the rules must be followed and enforced.

3.4.2 RADIO PROTOCOL AND PROCEDURES (Autotel, Sat-Tel)

Manuals for the operation of all vehicle radios and Autotel - Sat-Tel should be located in the glove compartment.

A copy of the radio channels and frequency list chart should be carried with the radio.

To access the BC Radio Tel channel available in the area are calling from:

- Press the transmit button for approximately 6 seconds and then release. If the Operator does not answer, try again.
- Once the Operator answers, ask for privacy. This will block out your part of the conversation for anyone who might be listening other than the party you have called. The party you are talking to will still be heard by all monitoring that channel. The receiving party should be informed that others can hear their portion of the conversation, even on privacy.
- After the Operator has indicated you have privacy, give your Telus number and then give the number that you would like to call.
- If during your conversation there is a period of time that nobody is talking, key your transmitter once every 20 seconds to maintain the connection. If this is not done, the connection will be severed and your call will be terminated.

Do Not give your Telus number to anyone, because it can be used by anyone with access to a Telus transmitter.

If there is already someone using the channel that you are on, try another channel or wait until that party has finished their conversation. Usually upon the completion of their conversation the Operator will come on the line and ask if there is any other traffic. At this time you should indicate **YES** and then proceed with your call. If the connection is cut without the Operator coming on, key the transmitter as soon as you hear the connection is severed.

If the Operator is difficult to hear there is a good chance the party you are calling will not hear you at all. Try another channel, or move to a better location.

If there is no ringing noise after the transmitter has been keyed, and the Operator has not answered, then another channel must be tried or you must move to a different location.

Telus should only be used for business calls, or for calling home to give notification that your arrival may be delayed.

3.4.3 CELLPHONE PROTOCOL AND PROCEDURES

3.4.3.1 BACKGROUND

Numerous experimental studies demonstrate that:

- Using a cell phone while driving slows the driver's reaction time by 18%
- Cell phone use increases the risk of rear-end collisions by twofold
- Using a cell phone while driving reduces visual field attention
- Cell phone conversation increases the probability of missing red lights
- Talking to a passenger is different because a passenger can see the traffic situation and adapt the conversation accordingly or warn the drivers of an imminent danger

3.4.3.2 EMPLOYERS HAVE A RESPONSIBILITY:

- Employers could be liable for motor vehicle collisions involving their employees who were using cell phones while driving
- In Miami, a jury awarded a woman $20.9 million in 2001 after she was injured in a car crash caused by a salesman making a cell phone call between appointments
- A $30 million lawsuit was filed against the law firm Cooley Godward when one of their associates while driving and talking on a cell phone fatally ran over a 15-year old girl in March of 2000

3.4.3.3 CELL PHONE PROCEDURE

Employees are reminded that when driving a vehicle for Frost Lake Logging Ltd., whether the vehicle is Company-owned or otherwise, you have one and only one responsibility and that is driving the vehicle. Safe driving requires 100% attention to the task at hand. Using a cell phone while driving leads to an increased risk of having an accident through distraction and/or a lack of attention to driving.

To ensure your safety, using mobile phones, cell phones, text pagers, or two-way radios, whether for work or personal use, while driving is strictly forbidden.

Please advise callers of this Company's cell phone policy.

Rule of the road for your cell phone use:

- Refrain from placing or receiving unnecessary calls. Allow voice mail to handle call the call for you.
- Do not place calls while driving. Pull over first or have a passenger place/answer the call.
- Never pick the phone up off the floor while driving. Pull over and park first.

3.4.4 RULES OF ROAD / RADIO CALLING PROCEDURES

Drive defensively - Expect the Unexpected

1. All traffic must drive on the 'RIGHT" side of the road.
2. Drivers shall slow down for oncoming traffic, when passing a stopped vehicle, and when meeting any road maintenance equipment.
3. Drive at a safe speed. Beware of hazardous conditions such as:
   - Freezing rain or snow.
   - Extreme dust, fog or smoky conditions.
   - Soft sub grade or high volume of traffic.
4. All vehicles must operate with headlights on.
5. All "EMPTY" traffic will clear "LOADED" traffic in pull-outs when required.
6. Vehicles must not stop on haul road except at a safe passing point or a pullout: in case of a breakdown, flares or reflectors must be utilized and other road users informed.
7. Forestry roads are radio assisted not radio controlled. Drive accordingly.
8. Never pass any vehicle without notifying them on the radio and receiving the "OK". The lead vehicles are responsible for slowing down, providing room and advising "OK" signal to vehicle requesting to pass and announcing the location of the pass.
9. Observe proper radio use protocol:
   - Call "EMPTY" or "LOADED" followed by kilometer (LOADED 242)
   - Avoid visiting - needless chatter and foul language will not be tolerated.
   - Keep volume of AM/FM radios low, so that it does not interfere with road radio.
   - Stay on designated road channel. (No scanning while driving)
   - Only one two-way radio per vehicle.
10. Switch channels only when you can see the road frequency change sign.
11. Empty vehicles call "EMPTY":
    a) When entering a new road
    b) All posted "CALL EMPTY" signs
    c) When you are unsure of the location of oncoming traffic.
    d) Wide loaded low beds traveling in the empty direction call all ODD empty kilometers and identify yourself as a wide load.
    e) Fuel trucks traveling in empty direction call all ODD empty kilometers
    f) Logging trucks hauling logs in empty direction call all ODD empty kilometers.
12. Loaded vehicles call:
    a) All loaded traffic call all "EVEN" loaded kilometers plus other posted loaded signs.
    b) Stoppage and duration as well as subsequent starts.

3.5 IMPAIRMENT ON THE JOB

Impairment in the workplace can have tragic results. Complete and constant awareness of hazards is critical.

If an individual suspects that a crewmember's judgment is impaired, he should check the suspicion out or advise the Supervisor. While this action can be awkward, the alternative of ignoring the situation can have far greater consequences.

OHSR Part 4; Sections 4.19 and 4.20 indicate the responsibility of the Supervisor and employee when this situation arises:

"A person must not enter or remain at any workplace while the person's ability to work is affected by alcohol, a drug or other substance so as to endanger the person or anyone else."

Persons reporting to work under the influence of alcohol or drugs, or using alcohol or drugs on Company property will be taken home immediately and subject to disciplinary action. Refer to Policy/Procedure **(Appendix C-C5)**.

3.6 WORKING ALONE / MAN-CHECK PROCEDURE

Where an employee works alone and could be injured without anyone knowing, a suitable man check system must be developed and used. In addition to the checks at regular intervals, a check at the end of the work shift must be done. The location and condition of a worker should never be "assumed". **Refer to OHSR Part 4; Sections 4.21, 4.22, 4.23 and Part 26; Sections 26.6, 26.23 and 26.28. (Working alone records, excluding fallers)**

3.6.1 GENERAL

3.6.1.1 MACHINE OPERATORS

- Whenever possible, machines should work together and check on each other.
- All machines working alone will have a working radio inside of the cab.
- All operators working alone will have a personal first aid kit (or better) in clean condition inside the machine.
- All operators will follow the Frost Lake Logging ltd. man check system.
- All Supervisors will ensure the man check system is in place before isolated work begins.

3.6.1.2 SUPERVISORS, MECHANICS & LOWBED OPERATORS

Whenever possible, all fieldwork should be conducted with a partner. When working in the bush, the following safety equipment is optional items to be carried:

- hand-held radio, with spare battery and list of channels
- Survival kit (space blanket, hooks, first aid kit, etc.)
- pencil flare projector
- crack flares and signal flares
- bear repellent and bear bangers

3.6.1.3 WORKING ALONE OR AT NIGHT

Working alone at night is not permitted without a defined monitoring process. Special check-in arrangements must be made prior to working alone during the day according to WSBC regulation 4.

Other Ideas:

- When leaving your truck, leave a note and/or map in the vehicle and indicate estimated time of return.
- Inform others in the area, contractors, and camp-road crews, what your plans are.
- Firearms may be used for personal protection. It is the holder's responsibility to follow all applicable laws and regulations.

3.6.2 MAN-CHECK SYSTEM POLICY

All logging, road maintenance, and silviculture will follow the Frost Lake Logging ltd. Man Check System when a worker is working alone.

The Man-Check System must ensure that all workers are contacted at least once every two hours to ensure the worker is able to secure assistance in the event of an injury or other misfortune.

Frost Lake Logging Ltd. Man Check System:

1. Ensure all workers working alone or in isolation are checked every two hours and when they leave the work site. If work process or location becomes hazardous, check intervals must be shortened.

   Procedures will be reviewed and documented before isolated work commences.

   Faller's well-being to be ensured every ½ hour and at the end of the work shift. **Refer to OHSR Part 26; Section 26.3(f)**.

2. Acceptable means of checking:
   Visual checks are preferred, but audible is acceptable. Must be positively ascertained.

   Radio or telephone checks are acceptable, if there is a predetermined check-in times and verification of those intervals.

3. Missed check-ins:
   If a crewmember misses a check-in due to radio problems, it is their responsibility to make their way towards other members of the crew. Upon failing to receive a check-in, the crew supervisor will attempt to locate the unaccounted crew person. He or she, at their discretion, will utilize other crew members as they see fit. If the unaccounted person cannot be located within one hour of the check-in, the unaccounted person should be considered missing and reported as such, consistent with the Emergency Preparedness and Response Plan (EPRP).

3.7 DE-ENERGIZATION AND LOCKOUT PROCEDURE

3.7.1 ELECTRICAL, MECHANICAL, AIR, HYDRAULIC AND PHYSICAL

OHSR Part 10; Section 10.2, 10.3 requires:

That if any work is to be performed on a piece of equipment the individuals involved must ensure that all hazards due to inadvertent movement of any parts of the equipment are controlled.

In order to achieve the requirements of the above regulation the following is a recommended procedure for compliance.

Each worker who works up in the machinery or equipment requiring lockout procedures shall be responsible for:

- Ensuring all elevated parts and hydraulic cylinders are in the rest position.
- Securing the control devices by removal of key, or application of tag-out implementing lockout bar or other suitable means of rendering the power source inactive.
- Know what components are operated by sensors or “eyes” and those components are secure or inactive.
- Removal of his own tag on the completion of his work.
- After lockout procedures have been applied, the operator or the person working on the equipment shall check the effectiveness of the lockout.
- In the case of pneumatic and hydraulic power, residual pressure must be drained off. Locking-out upstream pressure in pneumatic or hydraulic lines also locks in downstream pressure, which could cause an unwanted cycling of a machine. Sudden release of this pressure can be injurious; therefore it is recommended that the residual pressure be drained off slowly. This can be done by hand, by opening the bleed-off valves and this could be included in the lock out procedures, if the lockout valves do not incorporate automatic bleeders.

Common Booby Traps in Lockout Systems:

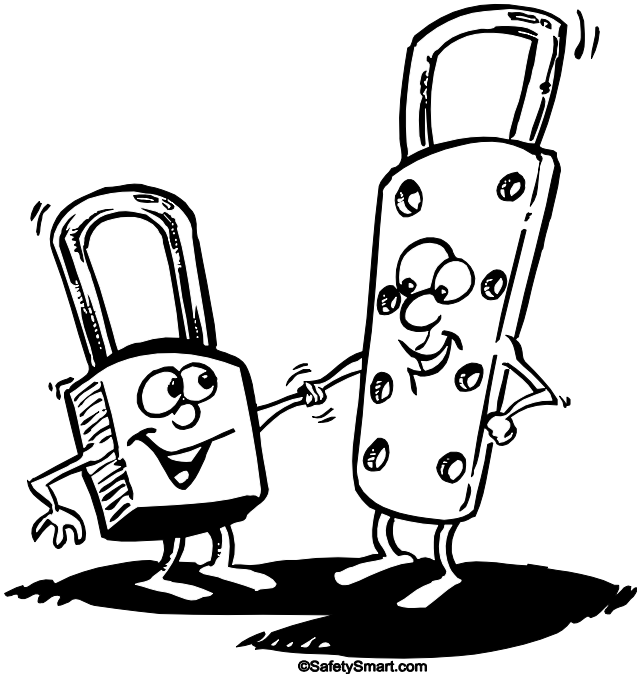
a) System not enforced and supervised.
b) Failure to use the lockout process.
c) Leaving key in ignition or not tagging.
d) Not checking that the lockout process has been followed.
e) Failure to use tags if required.
f) Not identifying all switches, valves and disconnects to the equipment.
g) Assuming equipment is operable.
h) Assuming the job is too small to merit locking out.

3.7.2 TRUCK LOCKOUT PROCEDURE

Lockout procedure of logging trucks, lowbeds and other mobile equipment is to be used in the event of having to stop for a breakdown or mechanical problems.

IF POSSIBLE STOP IN A SAFE FLAT, WIDE LOCATION

- Notify other traffic you are stopping.
- Apply applicable parking brake (maxi, etc)
- Apply trailer brakes and check they are applied.
- Park unit in gear and shut off engine.
- Make sure you are wearing your PPE when you get out of the unit.
- Block the wheels if the problem is mechanical and you are required to be in front, under or in line of the unit travel.
- Put hazard triangles or markers out.
- Work on the truck only if it is safe to do so, if not wait for help.
- It may be necessary for have assistance in directing traffic around the unit.
- Once repairs are complete advise traffic the road is clear, that you are mobile and your location.



3.8 PERSONAL PROTECTIVE EQUIPMENT

Scope: Policy applies to all workers in the forest (harvest contractor employees, logging truck drivers, gravel truck drivers, sand truck drivers, lowbed drivers, silviculture workers, etc). The expectation is that these rules will be followed not only on block, but also on access roads, gravel pits, main haul roads, highways, and mill sites.

Purpose: Personal Protective Equipment is the foundation to developing a safety culture within all organizations. Without employees committed to wearing their PPE, a successful safety program can never be achieved. Management, Staff, Owners, Employees, and Subcontractors must meet the following PPE standard:

3.8.1 SAFETY HEADGEAR (HARD HAT)

The acceptable safety headgear must meet the requirements of the **OHSR Part 8; Section 8.11.**

- Wear a red or orange hard hat at all times on Licensee / Contractor worksites and all road systems while outside of machines/vehicles.
- Also exempted are mechanics working in tightly confined areas. They must wear a hardhat if they start walking around site.

3.8.2 HI VIS APPAREL

- High visibility vests, in good condition and clean enough to be clearly visible, must be worn in all active logging areas, marshalling yards, and scale sites.
- Coveralls meeting the WSBC Standard: PPE 2 High Visibility Garment - Personal Protective Equipment Standard 2 are also satisfactory.

Must meet the requirements of **OHSR Part 8; Section 8.24 and Part 26; Section 26.7(1).**

3.8.3 GLOVES

- Suitable gloves must be used to protect the hands for the job performed (i.e. leather, rubber, latex etc…)

Refer to OHSR Part 8; Section 8.19.

3.8.4 SAFETY FOOTWEAR

A worker's footwear must be of a design, construction, and material appropriate to the protection required. To determine appropriate protection the following factors must be considered: slipping, uneven terrain, abrasion, ankle protection and foot support, crushing potential, temperature extremes, corrosive substances, puncture hazards, electrical shock and any other recognizable hazard. **Refer to OHSR Part 8; Section 8.22.**

Safety toe boots (CSA Green Triangle) must be worn where there is a risk of crushing injury or injury resulting from heavy objects falling on the foot (eg. servicing equipment).

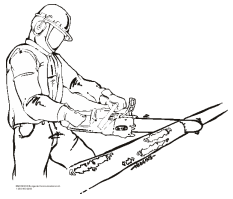
3.8.5 HEARING PROTECTION

If it is not practicable to reduce noise levels to or below the exposure limits in **OHSR Part 7; Section 7.2** the Employer must provide and maintain hearing protection and ensure that the hearing protection is worn as required by **OHSR Part 7; Section 7.13.**

3.8.6 EYE PROTECTION

Appropriate eye protection must be worn where there is a potential of eye hazards. **OHSR Part 8; Section 8.14.** Face shields are designed to protect the eyes and face from heavy impact, flying particles. Visors may be used but safety glasses must be used around helicopters to protect eyes from flying debris.

3.8.7 LEG PROTECTION DEVICES

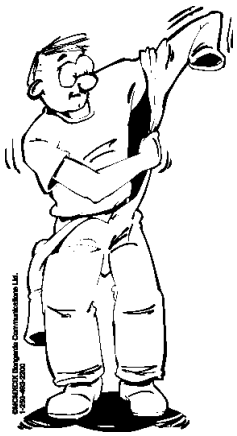


Employees operating chain saws, for any reason, must wear suitable leg protective devices. Use of a chainsaw on a regular basis, bucker pants will be worn, however, if using a chainsaw occasionally, protective chaps which are easily strapped on may be worn.

3.8.8 FIRE RETARDANT CLOTHING

All workers who are engaged in any activity at our operating locations that are exposed to situations where fire and explosion hazards regularly exist, are required to wear an outermost layer of clothing that is fire retardant. The standards will meet, at a minimum, the standard recognized by the petrol-chemical industry for fire retardant clothing or the standards developed by the Canadian General Standards Board.

Fire Resistant clothing (Proban or Nomex) must be worn by all employees associated with oil and gas operations. No one is allowed to wear outer clothing made of nylon, polyester or other meltable fabrics unless they are specifically designed to withstand flash-fires.
Must meet the requirements of OHSR Part 8; Section 8.24.



3.8.9 RESPIRATORY PROTECTION

Employees exposed to high concentration of dust, vapors, gases, noxious or toxic vapors, paint vapors, or an oxygen deficient atmosphere must wear respiratory protection devices appropriate to the material to which they may be exposed.

Employees working in conditions requiring the use of respirators must be clean-shaven where the respirator seals to ensure a positive fit.

Respiratory protection is needed when ventilation is not sufficient to remove welding fumes or when there is risk of oxygen deficiency.

Using Respirators

- Select and use respirators in compliance with your workplace regulation.
- Seek expert advice and initiate a proper respiratory protection program.

Respirators are of two basic types: air-purifying respirators and air-supplying respirators. For each type a number of styles are available, including half and full face piece masks. The selection of the proper respirator depends on the type of work being performed, the amount of contaminant produced and the concentrations, toxicity, and permissible exposures to harmful substances in the air.

Air-Purifying Respirators

For situations involving exposure to moderate amounts of non-toxic welding fumes, air purifying respirator masks provide adequate protection. They do not offer any protection if the atmosphere is low in oxygen or contains hazardous gases.

Disposable, single-use dust masks give limited protection from welding fume and are not generally recommended, particularly when the fume has toxic components. Multi-use respirators consist of a face piece with replaceable filter cartridges that remove particulate matter such as fumes and dust. The mask may be a half or full face piece and to be effective requires a good seal around the rim; beards and moustaches do not allow a proper seal.

Air-Supplying Respirators

Air-supplying respirators are the preferred system since they supply you with clean air. These respirators provide breathing air from a remote source.

Fit tests

- A respirator which requires an effective seal with the face for proper functioning must not be issued to a worker unless a fit test demonstrates that the face piece forms an effective seal with the wearer's face.
- Other personal protective equipment that is to be worn at the same time as a respirator and which could interfere with the respirator fit must be worn during a fit test.
- After a respirator is issued to a worker, the fit test must be repeated at least annually to ensure that the face seal remains effective.

Field Fit check

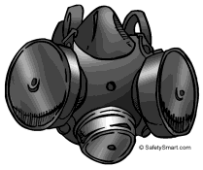
Before each use of a respirator, which requires an effective seal with the face for proper functioning, a worker must perform a positive or negative pressure fit check.

Checklist for care of respirators

- Inspect the respirator before and after each use and during cleaning.
- Replace all parts that are cracked, torn, broken, missing or worn.
- Follow the manufacturer's instructions.

Repair, cleaning and storage

- Do not clean with solvents.
- Follow the manufacturer's instructions.



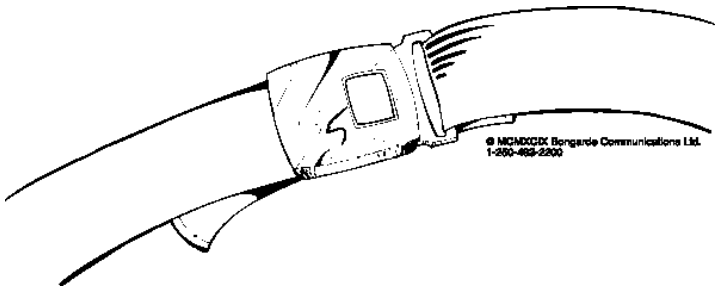
All Personal Protective Equipment must be maintained in good working condition.

3.9 POLICY ON SEATBELT USE

Purpose:
Seatbelts have been proven to save lives and reduce severity of injuries during accidents involving pickups, trucks, and in equipment. Frost Lake Logging Ltd will take a zero tolerance for employees, contractors, and subcontractors not wearing these proven safety devices.

Policy:
All users of roads (pickups, trucks, lowbeds, gravel trucks, etc.) – 100% use of seatbelts by all employees, contractors, and subcontractors.

Logging equipment with ROPs – 100% use of seatbelts in logging equipment.



Consequences:
Workers caught not wearing PPE will first be given a verbal warning, then a written warning and then he/she may be suspended if the problem persists.

3.10 CLIMATIC CONDITIONS

Winter conditions present additional hazards that must be watched for.

Work must not be conducted in any forestry operations where a potential hazard of avalanche exists until an assessment is made of the hazard and procedures developed to control the hazard.

If new employees start in the summer months, they may not have any knowledge of winter hazards and must be made aware of them before an accident happens.

All working areas and trails will, of course, be slippery, due to the ice and snow. Extra caution is required while walking, climbing over blow-down and operating machinery and chainsaws.

Field personnel working by themselves during the winter should ensure that their vehicles, snowmobiles and personal effects have the appropriate survival gear needed for the winter conditions.

If a worker is exposed to an environment with an equivalent chill temperature less than -7º C, a heated shelter must be made available near the worker and the worker must be instructed to enter the shelter at the onset of symptoms of impending hypothermia. A heated vehicle may be used as a heated shelter.

Refer to OHSR Part 7; Section 7.65 and Table 7- 4.

Adequate outer clothing is also important for all workers to avoid injuries from frostbite.

3.10.1 COLD STRESS

Jobs or workstations that are at risk of exposing the worker to the risk of hypothermia or cold related injury are to be identified.

When work is being done outside and the temperature drops below -7°C (19°F):

1. A heated shelter must be made available near the worker (200 ft). A heated vehicle may be used as the heated shelter.

2. The worker must be instructed to enter the shelter at the onset of symptoms of impending hypothermia or frost bite.

3. When cold surfaces are present, precautions must be taken to prevent frostbite from contact with these surfaces. Wear the proper winter gloves and other personal protective equipment.

4. If work takes place outdoors in ice or snow covered areas and there is a risk of injury to the eyes, workers must wear eye protection.

5. If a worker is required to perform work with the bare hands and there is a risk of cold related injury to the hands, provision must be made for warming the worker's hands to prevent the cold-related injury.

Note: Warm air jets, radiant heaters, or warm contact plates may be used to warm the hands. Hand warming is not the recommended first aid treatment for frostbite.

Accidental exposure:

When it can be reasonably anticipated that a worker may be exposed to hazardous cold conditions outdoors as a result of an unplanned event, the worker at risk must be provided with clothing and equipment to protect them from the cold and/or a heated place must be made available.

Clothing:

1. In cold conditions workers must wear adequate insulated clothing.

2. If clothing becomes wet so that its insulating value is impaired, the worker must be provided with the opportunity to change into dry clothing in a heated shelter, or allow their clothing to dry out.

3. To protect the extremities, protective footwear, and head covering and/or face masks appropriate to the hazard must be worn if there is a danger of frost bite to the extremities.

4. Protective gloves or mittens will be provided to protect the hands from the cold and the work being performed.

In increasing hazard (danger of freezing of exposed flesh within one minute) or high hazard (flesh may freeze within 30 seconds):

1. Workers will work with a partner or where that is not practical, a Supervisor or another worker will check on the worker at regular planned intervals.

2. All workers that work in these conditions will be trained to recognize the signs of frostbite, hypothermia or other cold related injury.

3. Workers showing signs of hypothermia or cold related injury will be removed from further exposure and assessed by first aid.

4. The Employer will ensure that workers will also be trained in proper re-warming procedures, proper use of clothing, proper eating, and proper drinking practices, and Safe Work Procedures appropriate to the work that is to be performed.

Proper apparel:

All employees must wear the proper clothing to work to fit the weather conditions. You must wear clothing to keep you warm and protected. There could also be a wind factor. The fact is if you work inside or outside you will be exposed to the cold weather in winter or just to get to work, so dress appropriately. It could be colder going into or coming out of a mill with the time difference. If you always dress for coldest you are protecting yourself.

Be aware:

In winter type conditions, use caution as the walkways can be covered in ice and snow. Be aware of slipping hazards. Watch for mobile equipment. Roadways can be slick even when sanding has been done. The mobile equipment may not be able to stop as fast as it can on a dry surface.

Also remember that steel conducts cold. If you touch cold steel you can get frostbite.

Watch out for ice and snow hanging down from roof tops and other high places it could break loose and fall, hitting you. If you see ice and snow hanging from something and you believe that it is a danger, tell a Supervisor so they can have it removed.

Signs and symptoms of Hypothermia:

<u>Mild Hypothermia:</u>

1. Shivering is present to maximize heat production.
2. A decreased pulse, to minimize further heat loss.

<u>Moderate Hypothermia:</u>

1. Confusion, decreased level of consciousness, inappropriate behavior.
2. Progressive decrease in level of consciousness. Shivering is inhibited.
3. Heart rate slows. Irregularities in the heartbeat may be detected. Respiratory rate fails.
4. The pulse may become difficult to find. There is a risk of developing cardiac arrest, especially with rough handling. Pupils are dilated.

Severe Hypothermia:

1. Coma may develop. Increased muscular rigidity. Slow heart rate. Pupils may be dilated and poorly reactive. Further decrease in respiratory rate.

2. Absent of pulses and no respirations. There may be no response to painful stimuli.

3. Maximum risk of cardiac arrest.

WE ALL LIVE AND WORK IN THE NORTH. WE ALL KNOW WHAT WINTER CAN BE LIKE. BE PREPARED. DRESS PROPERLY. USE CAUTION ON SLICK ROADS AND WALKWAYS. HAVE YOUR VEHICLE WINTERIZED AND CARRY BLANKETS, AND A CANDLE OR TWO, IN CASE YOUR VEHICLE BREAKS DOWN COMING TO, LEAVING WORK OR AT ANY TIME.

DO NOT PUT YOURSELF IN DANGER AT WORK OR AT HOME,
DUE TO WINTER CONDITIONS...OR AT ANY TIME!!

EQUIVALENT CHILL TEMPERATURE
Actual Temperature reading (Celsius)

Estimated Wind Speed in km/h	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50
0 calm	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50
8	9	3	-2	-7	-12	-18	-23	-28	-33	-38	-44	-49	-54
16	4	-2	-7	-14	-20	-27	-33	-38	-45	-50	-57	-63	-69
24	2	-5	-11	-18	-25	-32	-38	-45	-52	-58	-65	-72	-78
32	0	-7	-14	-21	-28	-35	-42	-50	-56	-64	-71	-78	-84
40	-1	-8	-16	-24	-31	-38	-46	-53	-60	-67	-76	-82	-90
48	-2	-10	-17	-25	-33	-40	-48	-55	-63	-70	-78	-86	-94
56	-3	-11	-18	-26	-34	-42	-50	-58	-65	-73	-81	-89	-96
64	-3	-11	-19	-27	-35	-43	-51	-59	-66	-74	-82	-90	-98
	LOW HAZARD Risk of exposed, dry skin being affected in less than 1 hour. Awareness of hazard low.				**INCREASING HAZARD** Danger from freezing of exposed flesh within 1 minute.			**HIGH HAZARD** Flesh may freeze within 30 seconds. *wind speeds of greater than 65 km/h have little additional effect.					

3.10.2 HEAT STRESS

Preventing Heat Stress:

Hot conditions put your body under a lot of stress. Physical activity stresses the body even more. When heat is combined with physical activity, loss of fluids, fatigue and other conditions can lead to a number of heat related illnesses and injuries. Death is even possible.

Heat stress is commonly associated with warm weather. It's true that warm weather increases the number of heat stress injuries and illnesses. However, warm weather isn't the only cause of heat stress. Heat stress can occur at any time the surrounding temperature is elevated. Even if the weather is cool, you may work in warm areas, indoors and out.

Causes of heat stress:

Six main factors are involved in causing heat stress. Please be aware of the following:

- Temperature
- Humidity
- Movement of air
- Radiant temperature of the surroundings
- Style and type of clothing
- Physical Activity

Adjusting to these factors and/or controlling them will reduce the chance of heat stress.

Acclimatization:

Your body can adjust to working in a warm environment through a process known as acclimatization.

This process involves gradually increasing the amount of time you spend working in a hot environment. The gradual increase will allow your body to properly adjust to the heat.

Even if acclimatized, conditions can occur that can affect our body's ability to cool itself.

- Bright sunshine
- High humidity
- Sources of heat in the workplace

If you are away from work for a few days, or you experience a brief period of cooler temperatures while working, you will need to re-acclimatize yourself. Ensure breaks are taken in an area that will permit you to cool off.

Engineering controls to control heat stress:

- Engineering controls can be implemented to reduce the possibility of stress.
- Exhaust hot air or stream away from the work area.
- Open windows if possible.
- Use fans to circulate air.
- Reduce the physical demands of work by using mechanical equipment if possible.

Administrative controls to prevent heat stress injuries:

Schedule tasks to avoid heavy physical activity during the hottest parts of the day. Electrolyte replacement drinks help also. Make sure everyone understands the signs and symptoms of heat stress.

Common sense precautions:

- Dress properly for the job. Wear lightweight clothing, which allows moisture to evaporate quickly.

- Wear reflective clothing or cooling suits for jobs, which require them.

- Use extra caution if you are required to wear clothing on the job which limits evaporation (you can succumb to heat stress much more quickly).

- Drink plenty of fluids.

Heat stress injuries:

There are a number of types of heat stress injuries. Some are annoying but not very serious. Others can quickly lead to life threatening situations. Know what to look for. It is important! This is especially true because the more serious heat stress conditions cause the victim to become disoriented and unaware of their condition. People who are overweight, physically unfit, suffer from heart conditions, drink too much alcohol or are not acclimatized to the temperature are at greater risk of heat stress and should seek or follow medical advice.

Major heat stress injuries are:

Heat rash -Is caused by a hot, humid environment and plugged sweat glands.
-Is bumpy red rash, which itches severely; it is not life threatening, but is very annoying.
-Dry clothes that help sweat evaporate will reduce the chance of heat rash.

Heat cramps -Are painful muscle cramps cause by loss of body salt through excessive sweating.
-To prevent heat cramps, drink plenty of non-alcoholic, caffeine free fluids while working in a hot environment.
-Anyone suffering from heat cramps should be watched carefully for signs of more serious heat stress. If cramps persist or other symptoms develop, seek medical attention immediately.

Heat Syncope (sin-co-pay)
-Is sudden fainting caused by reduced blood flow to the head.
-The victim's skin will be cool and moist and their pulse will be weak.
-Immediate medical attention is needed in the event of syncope.

Heat -Results from inadequate salt and water intake Exhaustion and is a sign the body's cooling system is not working.
-The victim will sweat heavily, their skin will be cool and moist, their pulse weak, and they will seem tired, confused, clumsy, irritable or upset, they may breathe rapidly - even pant - and their vision may be blurred. The victim may strongly argue that they are okay even with these obvious symptoms.
-If you suspect heat exhaustion, don't let the victim talk you out of seeking immediate medical attention. Heat exhaustion will affect their ability to exercise good judgment.
-Until medical help arrives, try to cool the victim and offer sips of cool water as long as the victim is conscious. Immediate medical attention is required.
-Heat exhaustion can quickly lead to heat stroke.

Heat Stroke -Is the deadliest of all heat stress conditions. It occurs when the body's cooling system has shut down after extreme loss of salt and fluids.
-The body temperature will rise; the victim's skin is hot, red and dry.
-Their pulse is fast, and they may complain of headache or dizziness.
-They will probably be weak, confused and upset.
-Later stages of heat stroke cause a loss of consciousness and may lead to convulsions.
-In the event of heat stroke, seek medical attention.
-Until help arrives, try to cool the victim and offer sips of cool water if the victim is conscious.

Buddy system:

Recognizing heat stress is very important, particularly since the victim may not realize what is happening. If you work alone in a hot environment, develop a "buddy system" so someone will check in on you periodically to look for signs of heat stress.

Drinking water:

In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body it is essential that water intake during the workday be about equal to the amount of sweat produced. Most workers exposed to hot conditions drink fewer fluids than is needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body.

Special Considerations:

Preventing heat stress is a matter of controlling the factors that cause it. Use the precautions and do not hesitate to seek assistance if you suspect heat stress. Your good health depends on it!

Heat acclimatized workers do not lose as much of their salt in their sweat as do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat production is high. If for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food. Salt tablets should not be used.

During unusually hot weather conditions lasting longer than 2 days the number of heat illnesses usually increases. This is due to several factors, such as progressive body fluid deficit, loss of appetite (and possible salt deficit), build up of heat in living and work areas, and break down in air conditioning equipment. Therefore, it is advisable to make a special effort to adhere rigorously to the above preventive measures during these extended hot spells and to avoid any unnecessary or unusual stressful activity. Sufficient sleep and good nutrition are important for maintaining a high level of heat tolerance. Workers who may be a greater risk of heat illnesses are: the obese, the chronically ill and older individuals.

The consumption of alcoholic beverages during prolonged periods of heat can cause additional dehydration. Persons taking certain medications (for blood pressure, diuretics, or water pills) should consult their physicians in order to determine if any side effects could occur during excessive heat exposure. Daily fluid intake must be sufficient to prevent significant weight loss during the workday and over the workweek.

3.10.3 Wind

Wind can create very dangerous working conditions particularly around old growth, decayed snags, and retained patches and trees. Keep aware of changing wind conditions. If it becomes too windy to work safely, leave the work site immediately.

If you are unsure if it is too windy – it probably is.

Always leave the work site immediately if small branches and debris are falling. Avoid dangerous conditions as you exit the work site.

3.11 CHAINSAW SAFETY

All operators must be adequately trained in the use of the chainsaw.

Chainsaws are to be maintained in good running order.

When starting a chainsaw, place it on a stump or other firm foundation. Never start a chainsaw on your knees.

Shut the chainsaw off when cleaning it.

Fuel to be carried in ULC approved containers only.

Be aware of the hot exhaust system when servicing and filling.

Do Not start the chainsaw at the refueling location.

Do Not smoke while refueling the chainsaw.

Fit handles on all files; do not carry files in your pocket.

Shut the chainsaw off when carrying it any distance.

When carrying the chainsaw, keep the bar to the rear to avoid falling on the chain if you trip.

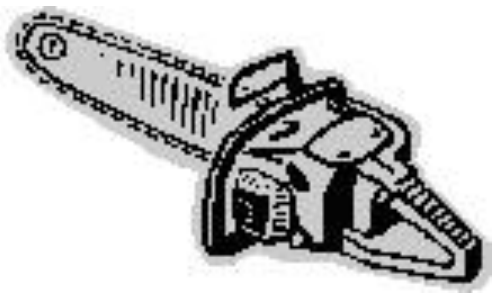
To reduce risk of kickbacks, keep a firm grip on the chainsaw with your thumb underneath the handhold and avoid touching limbs or other objects with the tip of the bar.

Chain brakes are to be maintained in good order.

Stop chain of chainsaw when moving from cut to cut.

Personal Protective Equipment:

Hi Vis Hard Hat, blaze orange
Hi Vis Vest or Jacket
Leg Protection Devices
Suitable Footwear
Gloves
Hearing Protection
Eye Protection (glass or screen)
Personal First Aid Kit
Fire Extinguisher



3.12 STEEP SLOPE SKIDDING

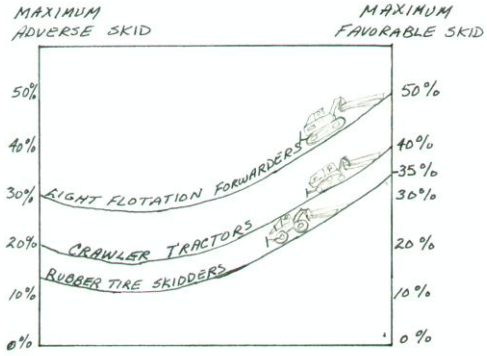
On slopes greater than 35%, skidder operators should be aware that there are additional hazards.

The operator should abide by the following:

- Wear seat belts at all times.
- When a steep slope is encountered, a site plan will be made to maximize both safety and production.

Without skid trails the following criteria should be observed:
Refer to OHSR Part 26; Section 26.16.

- Rubber-Tired Skidders 35%
- Feller Bunchers, Crawler Tractors 40%
- Other Forestry Equipment 50%
  - specifically designed for use on steep slopes i.e. Light Flotation Forwarders



When short, steep pitches that exceed these slopes are encountered, the following procedure must be followed:

- Ensure you operate your machine straight up and down the slopes, not across them. This includes traveling down slopes or backing up to the drag before grappling on to it.
- Do not swing machines on steep slopes. Swinging drastically changes your center of gravity and can easily lead to a fatal roll over.
- Utilize bladed trails where necessary to avoid machine travel across steep slopes.

All steep slopes will be reviewed by the equipment operator and/or Supervisor on a site specific basis.

The Supervisor should note all discussions regarding a particular plan to deal with steep slopes in their daily journal.

Weather conditions also play a crucial role in deciding whether or not it is safe to skid a particular slope (wet, slippery slopes during rain, frozen, slippery slopes during winter).

Each operator must evaluate their own comfort level when operating on steep slopes in accordance with this procedure.

IF YOU FEEL IT IS UNSAFE TO WORK ON A PARTICULAR STEEP SLOPE - DON'T!!!

Contact your Supervisor and develop an alternate plan such as use of a hand faller and/or hoe chuck with chokers from a safe work area for your machine (i.e. a skid trail or flatter ground).

Exceeding these slopes will jeopardize equipment stability. These slopes may be exceeded, if a proper site plan is in place. If going straight up or down, the path must be clear of obstructions so the unit will not have to turn at an angle to the slope.

The slope percent is defined as a rise over run, i.e.: if a hill side climbs 35 feet in 100 feet horizontal distance, the slope is 35%.

If skid trails are part of the approved logging plan, ensure that they are built flat enough that the drag will not slide off the trail.

If a curve is required make sure the radius is large enough that the drag will remain on the trail and not be "pushed" over the edge by the cut bank.

Be cautious of trying to pull too large a turn on steep slopes; it can push the machine on slippery or frozen slopes, or it can spill off the skid trail and pull the unit over the edge.

When operating on steep slope skid trails, remain on the skid trail - pull mainline out to the logs.

Ensure the turn is winched up tight to the unit when skidding steep slopes. This helps prevent runaways that can upset the skidder.

When operating on a steep slope, be aware of rocks and logs, which may become dislodged and come downhill striking the skidder or operator. This material can also roll downhill and strike workers on the landing.

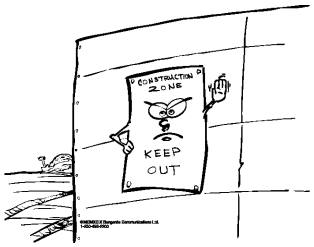
3.13 WORKING IN CLOSE PROXIMITY

Harvesting operations usually try to operate each phase of the process separate and in a form of natural progression. However as the block is logged operations start to overlap and can find themselves working in close proximity. The risks associated with this hazard can be minimized by following these procedures:

3.13.1 FELLER BUNCHERS

- When skidders are required to skid within the two-tree distance of a feller buncher, the Skidder Operator shall contact the Buncher Operator and the Buncher Operator will cease operation and advise the skidder that he may move within the restricted area. Upon exiting the area the Skidder operator will give the all clear and the Buncher may resume operation. Contact shall be by radio or visual.

- When a Buncher is operating adjacent to active roads or cutting a line up to an active road the following must be in place:
  a) Signs must be posted advising falling in the area.
  b) Vehicle operators must advise the Buncher Operator that they wish to pass and do not pass until acknowledged by the Buncher Operator.



3.13.2 SKIDDERS

Skidder operators find themselves working close to nearly all equipment. As most units now have radios, contact must be made before approaching within operating radius of any equipment. Then that operator must acknowledge it is safe to proceed. If no radio is available, eye contact and acknowledgement of intention must be received before proceeding.

3.13.3 PROCESSORS / LOADERS

Skidders and vehicles (Logging Trucks, etc.) are potentially the most likely units to be in close proximity. All units must request permission to pass and receive acknowledgment from the operator. Units will know it is safe to pass when the operator has lowered the boom to the ground as well as acknowledging their presence.

3.14 WORKING FROM AN ELEVATION

To work on elevated platforms, workers must be aware of the requirements for safe use of ladders, scaffolds and fall protection.

OHSR Part 11; Section 11 states:

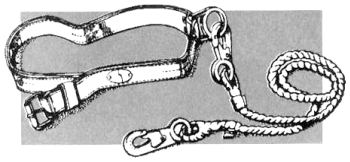
The Employer must provide a fall protection procedure and protection for workers that are required to work from a height of 10 feet or more.

Fall Protection Plan

- Fall protection can come in the forms of fall restraint or fall arrest. Fall restraint is any method that prevents the worker from falling off the work position, i.e.: guard rails, lanyard and belt or other acceptable conditions. Fall arrest is the harness and lanyard that prevents the worker from hitting the surface below.

Ensure workers are aware of the requirements of this procedure and are implementing the required Fall Protection Plan.

If fall arrest is required:



USE a full body harness

USE a fire resistant lifeline or lanyard. Anchor your line to a secure attachment point. INSPECT your line for damage and replace it if necessary.

USE the proper length of line for your elevation length.

3.14.1 LADDERS

- FOLLOW safe ladder use procedures as established in your workplace.
- SUPPORT a ladder at the bottom with ladder shoes and tie it off at the top.
- FACE the ladder when ascending and descending, using both hands.
- DO NOT extend a ladder away from the wall more than 1/4 of the perpendicular height of the ladder. The ladder should extend 3 feet (.9 metres) above the top of the top landing.
- DO NOT stand on the top two rungs of a ladder.
- DO NOT carry loads up a ladder. Use hoisting equipment.
- DO NOT use metal ladders with electrical equipment or near overhead wires.

Inspection

When should you inspect ladders?

- Inspect new ladders promptly upon receipt
- Inspect ladders before each use
- Check the condition of ladders that have been dropped or have fallen before using them again

What should you look for when inspecting any ladder?

- Missing or loose steps or rungs (they are loose if you can move them by hand)
- Damaged or worn non-slip feet
- Loose nails, screws, bolts or nuts
- Loose or faulty spreaders, locks and other metal parts in poor repair
- Rot, decay or warped rails in wooden ladders
- Cracks and exposed fiberglass in fiberglass ladders
- Cracked, split, worn or broken rails, braces, steps or rungs
- Sharp edges on rails and rungs
- Rough or splintered surfaces
- Corrosion, rust, oxidization and excessive wear, especially on treads
- Twisted or distorted rails. Check ladders for distortion by sighting along the rails. Using a twisted or bowed ladder is hazardous.
- Missing identification labels

3.15 BEAR AND COUGAR AWARENESS

3.15.1 Bear Safety

- Where the risk of bear encounters is high, personnel should attend a *Bear Awareness* course.
- Carry adequate protection (bear spray or an air horn) when working in high-risk areas.
- If you meet a bear do not turn and run immediately.
- Make sure the bear is aware of your presence, watch the bear, and back up cautiously.
- If the bear moves towards you, use bear spray or climb a tree as high and fast as possible. Continue to make noise.

Tips About Bears	Avoiding Bears
They run as fast as horses – uphill and down.	**Be alert.**
Bears climb trees.	**Look for signs of recent bear activity. Including droppings, tracks, digging, and claw marks on trees.**
They have an excellent sense of smell and hearing and better sight than most people believe.	**Make your presence known by talking loudly, clapping, singing or occasionally calling out. Back up cautiously.**
They are very strong and defend their personal space.	**Stay away from dead animals.**
They aggressively defend food and cubs.	**Be aware and try to avoid high-risk areas (salmon spawning streams, etc.) by season. Never attempt to separate or walk between a sow and cubs.**

3.15.2 Cougar Safety

- A cougar's primary prey is deer. It will also feed on wild sheep, elk, rabbits, beaver, raccoons, grouse, and occasionally livestock.

- Cougars are most active at dusk and dawn. However, they will roam and hunt at any time of the day or night and in all seasons.

Tips About Cougars	Avoiding Cougars
Cougars range from 40 – 60kg.	**Hike in a group of two or more and make lots of noise.**
Cougars are most active at dusk and dawn but do roam and hunt any time of day and in all seasons.	**Watch for signs of cougars — tracks, covered kill — and avoid these areas.**
During late spring and summer is when young cougars search for their own territory and when most cougar encounters occur.	**Never approach a cougar. Always give a cougar an avenue to escape – never corner it. Stay calm and talk to the cougar. Do not run or turn your back. Do all you can to enlarge your image. Fight back.**

Hunting Season Precautions
Check all roads within your working area for hunters before entering the woods.
Wear bright colors. "No Hunting" signs are available for posting on road access.
Hunting rifles and bows are not permitted in Company vehicles.

3.16 FIREARM SAFETY

Anyone having firearms on the worksite must conform to all Firearm Restrictions required by Legislation.

NEVER point a firearm at anything you do not want to shoot. Avoid all horseplay with any firearm.

NEVER climb a fence, tree, or jump a ditch with a loaded firearm.

NEVER carry a firearm with the hammer fully cocked.

Keep your firearm unloaded when you are not using it.

If a firearm is to be sighted in or target practice to be performed advise persons in area before shooting.

Unload your gun immediately when you have finished shooting, well before you bring it into a vehicle, camp or home. **Store firearms and ammunition separately.**

3.17 SECURITY

It is the responsibility of the contractor to ensure that adequate security precautions are in place that will promote a safe and secure work area for both the workforce and public.

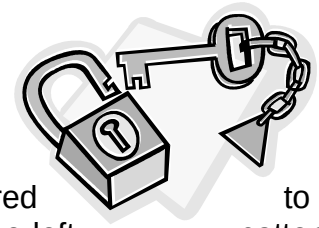
3.17.1 SITE SECURITY

Adequate temporary fencing shall be installed to deter access to work areas, especially around excavations.

All plans and work procedures shall be followed to ensure best practices in keeping workers from being exposed to hazards.

Contractor's vehicles shall be parked in designated areas and vehicle traffic through the work area kept to a minimum.

The contractor will ensure all workers, subcontractors, and suppliers arriving on site comply with Prime Contractor's Orientation for man check. This is sign in/out process. In the event of an incident, these individuals will be checked at the muster point location against this man check sheet.



3.17.2 EQUIPMENT SECURITY

All equipment will be locked and elevated parts lowered to ground at the end of each shift or when the equipment is going to be left unattended. Parking of units should be done in such a manner that it makes it difficult for vandals to move. Master switches are to be off and units adequately immobilized.

4.0 EMERGENCY RESPONSE

These procedures reference the Employer and worker to the requirements of the existing Occupational Health & Safety Regulation. Additional information can be provided by the Prime Contractor (Licensee) and should be referred to for supplemental information.

4.1 FIRST AID

Part 3 of the Occupational Health & Safety Regulation (OHSR) requires Employers to make provisions to ensure that their workplaces have first aid coverage.

4.1.1 EMPLOYER'S RESPONSIBILITIES

- Conduct an assessment to determine the level of first aid service that must be provided for a workplace **(Refer OHSR Part 3, Section 3.16(1) to (3).**
  See Appendix B-B15 First Aid Assessment Checklist).

- Develop and implement first aid procedures **(Refer OHSR Part 3, Sections 3.16(4) and Sections 3.17 to 3.19)**.

- See EH&S Manual Sections 4.1.2 to 4.1.4 and Appendices:

B16	**First Aid Assessment Checklist**
B17	**First Aid Evacuation Information Sheet**
B18 & B19	**Emergency Response Procedures Checklist**
B20	**Emergency Response Phone Numbers**

REQUIREMENTS FOR REPORTING ACCIDENTS AND OBTAINING FIRST AID TREATMENT

Supervisors shall inform each worker that all injuries, regardless of how slight, must be reported to the Supervisor immediately, who shall make available first aid treatment.

All Supervisors shall have a first aid kit in their vehicles for immediate use.

The Supervisor and First Aid Attendant shall ensure that every injury receiving First Aid treatment is reported and recorded in an approved Record Book at the job office or with the First Aid Attendant.

4.1.3 SERIOUS INJURY

- The First Aid Attendant on site shall be notified immediately by radio of any injury. The reporting party should specify:
  - the location of the injured worker
  - the nature of the accident
  - the time of the accident

- Simultaneous notification shall be given to all Supervisors within radio range.
- Additional help will be summoned as necessary.
- All workers called to the accident site must remain until dismissed by the attendant.
- Should the ETV be dispatched, all radio traffic shall be kept at a minimum and other traffic should clear the road.
- All work processes may stop if assistance is required to aid in details of transportation.
- The First Aid Attendant will accompany the patient to camp in the ETV, designating driver and assistants as the situation dictates.
- If the situation warrants, the attendant may request the immediate Supervisor to arrange for Provincial Ambulance or a Medi-vac to meet the ETV en-route to expedite more rapid transport to the medical facility.
- **HELICOPTERS WILL NOT FLY AT NIGHT.**
- Any or all of the crew may be called upon to assist in transport or Medi-vac procedures.
- The hospital shall be notified of the estimated time of arrival and all pertinent medical information by the FAA or designated person.

4.1.4 FIRST AID GENERAL

All injuries must be reported to the First Aid Attendant immediately. Failure to do so may delay a claim for compensation. **Refer to OHSR Division 5; Sections 53 to 78**.

The First Aid Attendant shall be in complete charge of all First Aid treatment of injured workers until medical aid is available.

All workers on compensation must notify their Employer or Supervisor the day they are found fit for work by their doctor.

Learn the medi-vac procedures and know the location of the operation.

Learn who the First Aid Attendant is, and where he/she works.

Learn where you are located.

Learn the type of communications you have at your work site.

Calling For Assistance:

a. Try to remain calm
b. Request on radio for First Aid and give your location even if you do not get an answer, someone may hear you
c. Repeat on other channels

4.1.5 FIRST AID EVACUATION

The First Aid Attendant shall make the decision whether an injured worker should be transported by air or ground transportation to the nearest hospital or other place of medical treatment.

A First Aid Attendant shall, if they deem it necessary, accompany an injured worker being transported to medical aid.

In the event of an Injured Person Who Requires Transportation, either by ambulance or helicopter, the following procedures should be followed:

- Provide First Aid immediately to the injured person. Make them comfortable, keep them warm, but unless they are in danger of further injury from their location, **Do Not** Move Them.

- Contact the closest First Aid attendant.

- Contact Ambulance service dispatch.
  See Appendix B-B18 Emergency Response Phone Numbers.

If the ambulance dispatch cannot be reached, Contact the Office.

Advise Location of the Accident, giving geographic location, include information on nearest landmarks, i.e. lakes, camps, etc., distance from hospital by road, road number, etc., weather in area, if helicopter use is considered. Provide longitude and latitude.

Provide information as to the Nature of Injuries, and How the Injury Was Caused, i.e. struck by tree, hit by log, etc. and Approximate Time of Injury.

Inform Radio Channel to be monitored and Assign Someone to monitor the radio. If contact was made by radio telephone, Give Them Your Radio Telephone Number so that they may call you back if they require additional information.

Specify if Ambulance Attendant Required.

Advise them if there is an Industrial First Aid Attendant on site and whether or not they wish to move the injured person.

Determine whether they are sending an ambulance by road or helicopter. If ground ambulance, ask if they wish to be escorted to your location. If they do, dispatch a vehicle to meet the ambulance.

Supervisor will be responsible to contact the Manager and to notify the appropriate agencies WSBC, RCMP, etc., and Preserve the Accident Site as best as possible for investigation purposes.

4.1.6 EVACUATION BY ROAD OR BY AIR

1. In case of emergency, using Monkman or Apollo Repeater frequencies, call any of the first aid attendants and your Supervisor. Briefly describe what is required and your location. Do not use the patients name on the radio.

Radio Channels: Monkman - 159.600
Apollo Repeater - 153.590 (Rx) 157.400 (Tx)

2. Anyone who is designated by the first aid attendant or is able to place a call can radio for emergency transportation.

3. Call the **Provincial Ambulance Service** at **1 800 461 9911** and explain to them that you will meet them at a preferred meeting point (Usually the Leo Creek - Tachie Rd Junction at 40km on the Tachie Rd).
Let the Ambulance Service know that you will be running on L&M Frequency (151.655) heading down the Leo Creek FSR and what time you expect to be at the meeting point.

4. If an **air evacuation** is necessary, call the **Provincial Ambulance Service** at **1 800 461 9911** and explain that you require an air ambulance using one of the following helicopter companies:

Pacific Western Helicopters: Prince George - **(250) 562 7911**
Or:
Interior Helicopters: Fort Saint James - **(250) 996 8644**)

- Let them know you require a helicopter that can accommodate a spine board for patient evacuation (it is also important to ask what side the stretcher sits in so that you can position the patient on the proper side facing the attendant).
- Make sure you also give them your location as well as the Latitude/Longitude for the area (which is available off of your Logging Plan Maps).

Appendix B-B15 - First Aid Assessment Checklist
Appendix B-B16 - First Aid Evacuation Information
Appendix B-B17 Emergency Procedures Checklist
Appendix B-B18 Emergency Response Phone Numbers

4.1.7 FATALITY

- Correct any immediate unsafe conditions that may cause dangers to yourself or others.
- Leave the accident site exactly as it is if possible. (for WSBC and RCMP)
- The first aid attendant will take care of the accident scene and attend to the care of the body.
- Notify Company representatives immediately.
- Ensure a doctor and/or ambulance has been called.
- Notify the RCMP - 911 and WSBC immediately if Company rep has not already done so.
- Do not name the victim over the radio.

4.2 SPILL CONTINGENCY PLANNING

4.2.1 SPILL RESPONSE & REPORTING REQUIREMENTS

Spilled chemicals should be effectively and quickly contained and cleaned up. All spills must be reported to their immediate Supervisor, warn other employees, and mark the area of contamination to prevent further exposure to other workers.

Continual leaks **must be** stopped. When a spill occurs all reasonable and practical action shall be taken, having due regard for the safety of the public and the operator, to stop, contain and minimize the effects of the spill.

RESPONSIBILITIES

The **Supervisor** has primary responsibility for coordinating the response to emergencies, including chemical spills. Supervisors should ensure that employees are familiar with these procedures and receive any necessary training. All employees should follow these procedures in the event of a spill. Supervisors are responsible for filling out the Spill Report and submitting it to their immediate Supervisor.

See Appendix B – B19 Spill Report Form

The Company will ensure there is a spill kit on site at all times.

Spill Response Action Steps:

1. **SAFETY**
   - Take charge of the situation.
   - Ensure that there are no immediate hazards (sources of ignition, unstable tank in the event of roll-over etc…).

2. **STOP**
   - Identify the product.
   - Block flow of the spilled product (upright, turn-off, plug leak).

3. **PREVENT FIRE**
   - Eliminate all ignition sources in case the spilled product is flammable.
   - Extinguish any flames.

4. **WARN OTHERS**
   - Evacuate if necessary.
   - Enforce no smoking at the spill site.

5. **CONTAIN**
   - Take safety precautions by donning the appropriate Personal Protective Equipment (goggles, gloves, rubber boots, and coveralls).
   - Use spill kit commercial absorbents, sawdust, dirt berms, ditch blocks to contain the spill.
   - Direct spill away from any watercourses.

6. NOTIFY SUPERVISOR

- Promptly report all spills to your Supervisor.

7. REPORT SPILL

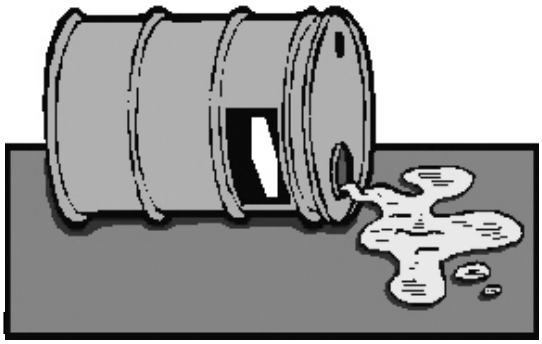
- Refer to Apollo Forest Products Ltd. Spill Prevention and Response Plan for appropriate reporting and clean-up procedures.

NOTE: If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazardous waste.

REPORTING REQUIREMENTS

All spills greater than 100 litres that are not contained, must be reported to the **MoWLAP** by calling the **Provincial Emergency Reporting Hotline** at **1-800-663-3456. (YOU MUST DIAL 9 FOR AN OUTSIDE LINE**)

- Provincial Emergency Hotline: 1-800-663-3456
- Department of Fisheries & Oceans: 250-851-4950
- Conservation Officer: 558-1776
- RCMP/FIRE/AMBULANCE: 911
- Ministry of Water Land and Air Protection: 1-866-632-8600



4.2.2 CLOSURE

Any contaminated soils must be handled accordingly.

Remove all waste materials from the site.

Develop a good pollution prevention program, this would reduce the need for site clean-up / restoration and thus reduce additional cleanup costs.

Written notice should be sent to MoWLAP that site cleanup was done and site is no longer in use.

4.3 FIRE MANAGEMENT

Fire hazards must be removed if and when possible.

Fires must be reported immediately and employees must assist in bringing them under control.

All employees must be familiar with the method of reporting fires and in the use of fire fighting equipment. Standard of instruction is S100 Fire Management.

All employees should be trained in fire prevention and emergency evacuation procedures. **Refer to OHSR Part 4; Section 4.16.**

Any fire extinguishers which have been used must be replaced immediately and the used one returned to the foreman for recharging. Playing with fire extinguishers is prohibited.

Checking for unseen fires after machines have been shut down is recommended.

All fire tools and equipment are plainly marked 'FIRE' as are all Fire Boxes and Stations. All handles and heads of tools are painted Fire Red for identification. Fire tools which have been used must be cleaned or replaced.

Fire Reporting:

Step 1

Call Provincial Fire Control:
1 800 663 5555 (*5555 from a cellular phone)
Or
Prince George Fire Center
1 250 565 6126

Step 2

Fires thought to be within the Company's area of responsibility should be reported to:
Apollo Forest Products Ltd.
1 250 996 8297
And
Ministry of Forests (Vanderhoof)
1 250 567 6363

Useful Information When Reporting a Fire:
When reporting a fire, relate all the information needed on the Initial Fire Report Form to the Fire Control Center. See Apollo Forest Products Ltd's Annual Wildfire Plan for this form and more detailed information.

When a Fire Occurs:

- Stop operations and notify the rest of the crew.
- Refer to the above list for additional phone numbers if required. The reporting person shall remain available to communicate details of the fire suppression activity taken and what may be required.
- The remaining crew shall begin immediate action on the fire to their level of safety and competence.
- The person in charge of the crew during suppression operations will continue to supervise the efforts until relieved by the Licensee representative or forest service personnel.

If Alone:

- DO NOT take action on an intense fire yourself. If the fire is beyond your ability, notify the Forest Service immediately and follow their instructions.
- Take immediate action on the fire if you believe you can control it yourself.

Hand tools used in fire fighting are simple and effective, but they can be dangerous when used carelessly. Abide by the following safety rules to decrease the risk of injury to yourself and to fellow crew members:

- Hand tools should be kept in safe working conditions
- Keep sharp edges covered or shielded when not in use to prevent accidental impact and to protect the edge of the tool
- Do not leave tools where they may be walked on. Lean them against a tree or rock
- Secure tools to be transported
- Carry tools at waist level and not over the shoulder. This will allow you to throw the tool clear if you fall and will prevent injury to yourself or others
- When walking along a hillside, carry tools on the downward side
- Pass tools to others, handle first. Never throw them
- Maintain a 3 meter distance from co-workers when walking or working
- Hand tools should be used only for the purpose for which they were designed
- Tools with mushroom heads, split and defective handles or other defects must not be used.

Fire Safety Tips:

- Know what the fire is doing at all times.
- Base all actions on the current and expected behavior of the fire.
- Plan escape routes for everyone and make them known.
- Be alert, keep calm, think clearly, and act decisively.
- Maintain prompt communications with your crew, your boss, and adjoining forces.
- Maintain control of your crew at all times. Stay together as a crew.
- When you are working with tools, keep a safe distance from other fighters.
- Your feet are your worst hazard. Keep sure-footing at all times to avoid injury.
- Be Alert for rolling rocks or rolling logs when your are walking or working on slopes.
- Observe NO SMOKING restrictions in certain designated areas.

Emergency Preparedness Procedure - Fire Equipment Requirements

Timber Harvesting, Road Construction, Road Maintenance & Deactivation

3 People or Less On Worksite			3 People or More On Worksite		
Mandatory Fire Equipment for machinery with large engines	Mandatory Fire Equipment for working with small engines	Mandatory Fire Equipment for people	Mandatory Fire Equipment for people	Mandatory Fire Equipment for working with small engines	Mandatory Fire Equipment for machinery with large engines
1 - Pulaski or Mattock	1 - Pulaski or Mattock	1 - Pulaski or Mattock	1 - round nosed shovel, pulaski or mattock for each person	1 - round nosed shovel, pulaski or mattock for each person	1 - Pulaski or Mattock
1 - Round nosed shovel	1 - Round nosed shovel	1 - Round nosed shovel			1 - Round nosed shovel
1 - Fire extinguisher with a ULC rating of at least 1A5BC	1 - hand tank pump containing at least 18L of water	1 - hand tank pump containing at least 18L of water	1 - hand tank pump containing at least 18L of water for every 3 persons	1 - hand tank pump containing at least 18L of water for every 3 persons	1 - Fire extinguisher with a ULC rating of at least 1A5BC
1 - Fire extinguisher with a ULC rating of at least 3A10BC or an integral fire suppression system	1 - personal fire extinguisher charged with at least 0.225 kg (0.5lbs) of fire extinguishing chemical	1 - Appropriate fire suppression system	1 - Appropriate fire suppression system	1 - personal fire extinguisher charged with at least 0.225 kg (0.5lbs) of fire extinguishing chemical	1 - Fire extinguisher with a ULC rating of at least 3A10BC or an integral fire suppression system

Hot Work (Cutting, Grinding, Welding etc…)

Mandatory Fire Equipment

2 - Fire extinguishers with a ULC rating of at least 3A10BC
1 - Round nosed shovel
2 - hand tank pumps containing at least 18L of water

4.3.1 WELDING AND BURNING

- Most industrial fires are started by burning or welding equipment and many of these have developed into fires of major proportions with property damage running into the tens of millions of dollars and, in some cases, loss of life.
- **Refer to OHSR Part 12; Sections 12.112 to 12.126.**

- Never weld a tank, pipeline or portable container without making absolutely sure that it is free of any explosive or toxic vapours.

- Chemical or other approved extinguishers must be checked before starting work and the extinguishers must be at the point of work at all times.

- Always use a water hose in preference to a chemical extinguisher except in the case of electrical, oil or grease fires.

- No cutting, burning or air arcing shall be done in such a way as to endanger other workers.

4.3.2 ARC WELDING

- All welders shall wear proper welding helmet with approved safety lens. Also, proper fitting clothes and gloves are to be worn.

- Handle your arc welding equipment with respect. High voltage handled carelessly can cause injury or death.

- Make sure all connections on your welding equipment are tight and insulated and that connections are not placed on flammable material.

- When arc welding, ensure the ground is close to work and firmly attached.

- Never change polarity when under load.

- Use proper eye protection when chipping or grinding.

- **NEVER** run a fuel-driven welder in a confined space, carbon monoxide can build up quickly.

- Be sure your machine is properly grounded.

- Avoid standing on damp ground when arc welding.

- Keep the connection of the electrode lead to the holder tight to avoid over heating which will burn your hands.

4.3.3 OXY-ACETYLENE WELDING OR BURNING

- Ensure all fittings and gauges are in good working order. Never allow gauges to become oil contaminated.
- Cylinders must be upright and at least 10 feet from operation.
- At the end of operation ensure gauges are off and lines drained.
- Wear appropriate eye protection.
- Never use oxygen for cleaning or ventilation - it will promote fire if there is a fire source. Oxygen can saturate your clothes and a spark can set them on fire.
- All hose and torch connections must be leak proof.
- Shield welding area from other workmen.
- Use backflow devices on both the oxygen and the acetylene hoses to prevent “suck back”, a condition where the gases are mixed within the torch or hoses.
- Replace protective caps on all cylinders not in use.
- Keep boots tightly laced and coveralls buttoned so slag won’t get between your foot and boot.
- Use ear plugs when there is a chance of hot slag entering your ear.
- Properly clean fuel containers before welding.
- Remove or carefully guard fuel tank on machines being welded.
- Do not cut towards oxygen or acetylene bottles.
- Do not use pressure in excess of 15 pounds on any acetylene gauge.
- Always wear hearing protection when using the air arc.
- Always wear gauntlet type gloves while welding or cutting.
- Wear leather aprons or jackets if you are required to work under heavy sparks.
- Protect chrome rods, glass and machined surfaces from splatter.
- Identify hot objects.
- Make sure there are no inflammable materials near work area.
- Store all bottles in a secured position with safety caps screwed on. Separate area should be used for full and empty bottles.

4.3.4 HOW TO USE YOUR FIRE EXTINGUISHER

Before implementing the following steps, upend the extinguisher and rap firmly against side of canopy or other solid surface to loosen contents.

Pull the pin.

Aim extinguisher nozzle at the base of the flame.

Squeeze trigger while holding the extinguisher upright.

Sweep the extinguisher from side to side, covering the area of the fire.

Remember:

Should your path of escape be threatened
Should the extinguisher run out of agent
Should the extinguisher prove to be ineffective
Should you no longer be able to safely fight the fire
Then Leave the Area Immediately

4.3.5 HOW TO INSPECT YOUR FIRE EXTINGUISHER

- Know the locations of your extinguishers.
- Make sure the class of extinguisher is safe to use on fires likely to occur in the immediate area.
- Check the seal. Has the extinguisher been tampered with or used before?
- Look at the gauge and feel the weight. Is the extinguisher full? Does it need to be recharged?
- Make sure the pin, nozzle and name plate are intact.
- Report any missing, empty or damaged extinguishers to the appropriate person at your workplace.

4.3.6 TYPES OF FIRES

Class A These fires consist of wood, paper, rags, rubbish and other ordinary combustible materials.

Recommended Extinguishers: water, through the use of a hose, pump type water cans, or pressurized extinguishers.

Fighting the Fire: soak the fire completely, including the smoking embers.

Class B Flammable liquids, oil and grease.

Recommended Extinguishers: dry chemical, foam and carbon dioxide.

Fighting the Fire: Start at the base of the fire and use a swinging motion from left to right, always keeping the fire in front of you.

Class C Electrical Equipment

Recommended Extinguishers: carbon dioxide and dry chemical (ABC units).

Fighting the Fire: Shut off the power. Use short bursts on the fire. When the electrical current is shut off on a Class C fire, it can become a Class A fire when the materials around the electrical fire become ignited.

4.4 NATURAL DISASTERS

Natural disasters may include landslides, earthquakes, floods and avalanches.
Standard response for any emergency is the basic three steps:

Step 1: Warn people, secure area and ensure no danger to self.

Step 2: Give assistance and minimize danger.

Step 3: Notify Employer, Regulatory Bodies and work with remediation of emergency.

4.4.1 LANDSLIDES/AVALANCHES

In any operation where there may be a risk of a landslide or avalanche:

- The risk must be assessed in accordance with a standard acceptable to the Board;
- If a risk is found to be present, written Safe Work Procedures must be developed meeting the requirements of the standard; and
- Workers must be educated in Safe Work Procedures.

4.4.1.1LANDSLIDES

See applicable EPRP

<u>"Assessed in accordance with a standard acceptable to the Board" means:</u>

(1) The forestry operation is subject to the requirements of the Terrain Stability Mapping Guidebook and the Gully Management Guidebook (currently required prior to PHSP and LP approval). An experienced professional engineer or geo-scientist must complete this process, with extensive experience in terrain stability assessments. This process results in a terrain stability classification 1 through 5. Class 4 and 5 are considered to have a moderate to high failure potential and should only be accessed during favorable conditions and with due regard for conditions or procedures that may trigger a slide event. Any attempt to log class 4 or 5 areas significantly increases the risk of worker exposure to landslides, debris torrents and avalanches. Proper procedures must be developed to reduce the risk.

(2) If terrain stability mapping has not been undertaken, any slopes in excess of 60% or slopes identified by field staff as having indicators of instability must be evaluated by a professional engineer or geo-scientist.

(3) Because slides, avalanches and debris torrents may initiate well above a forestry operation, the assessment procedure must include an evaluation of air photos by experienced professional engineers or geologists to determine if such an upslope hazard exists.

4.4.1.2 LANDSLIDE SAFETY ASSESSMENT

See applicable EPRP

Landslides that initiate at older logging roads located above active forestry operations can pose a serious threat to worker safety.

To reduce this risk, all persons responsible for forestry operations are advised to have professional engineers or geologists, with extensive experience in terrain stability assessments, evaluate the stability of any roads lying above active or proposed logging areas where landslide activity could endanger worker safety.

Assessments should take place immediately where logging or road-building is active on slopes below these older roads.

The assessments should evaluate the following:

- Stability of upslope roads,
- Effects of roads' drainage works on the stability of terrain below such roads,
- Potential for landslide initiation, and
- Potential landslide run-out zones.

Where terrain stability concerns are present, the person responsible for the forestry operation should implement Safe Work Procedures, which act to protect forest workers from landslide hazards.

These procedures could include, but are not limited to:

- Immediate deactivation of road systems to control potential stability problems,
- Implementation of seasonal rainfall or snowmelt shutdown guidelines (in some situations snowmelt may act in a similar manner to heavy rain), and
- Relocation of forestry activity to safer areas.

Road deactivation may not always result in complete stabilization of a slope. Consequently, any deactivated roads lying above active or proposed logging/road building operations should be assessed in the same manner as non-deactivated roads.

Similar precautions should be taken where road construction or road deactivation is taking place above active logging operations.

The persons responsible for the forestry operation are also advised to carry out these road stability assessments for any older roads located above any camp or other installation where workers will be living or working, or above other areas where public safety may be a concern.

Individual work locations, (cut banks, gullies, below side-casts, etc.) are to be evaluated by a competent individual to determine and identify potential risks.

OH&S Regulation 26.17
When weather conditions create hazards to workers, additional precautions must be taken as necessary for the safe conduct of the work.

4.4.2 AVALANCHE HAZARDS IN THE SPRING

In mountainous terrain, do not stop in any gullies, stream channels, alluvial fans or open areas if there is any possibility that they may be snow avalanche slide paths. Such terrain must not be frequented until the avalanche hazard has been assessed and a safety management plan is in place.

Be aware of possible avalanche hazard when working on any steep slope (more than 50%) covered with more that about 75cm of snow.

Use qualified experts to assess all steep, snow-covered slopes above roads and working areas, to ensure that they will not be prone to avalanche. Steep, older clear cuts above working areas or active roads should be viewed with particular caution.

Be aware that any unusual weather conditions (rapid warming, heavy rains, and warm winds) will quickly cause any avalanche hazard to increase. In springtime, be especially wary on or under south-facing slopes during warm afternoons.

Besides threatening workers, avalanches may also damage equipment, block roads and cutoff access (including emergency access). These secondary effects must be recognized and managed if work is done in avalanche-prone terrain.

Be aware that avalanche control is of limited use in forest operations and may give a false sense of security. For example, during springtime when it is warm, slopes stabilized one day can become just as dangerous the next.

Restrict blasting to one-time, specific problems (such as removing a large snow cornice from above a gully that crosses an active road) and make sure that such operations comply with all WSBC regulations.

New avalanches are the surest sign of high avalanche danger. Until the danger has been assessed and has subsided, suspend operations and do not work to clear avalanche debris if a new slide has occurred.

Although avoidance of hazard is the key to safety, workers unavoidably exposed to avalanche hazard must be equipped with avalanche rescue equipment (transceivers, probes and shovels), training and knowledge in the use of this equipment, and be properly trained in rescue procedures. It must be stressed that transceivers do not reduce the hazard or impact of an avalanche – they make it easier to find someone buried in a slide and so should not be used to justify working in otherwise hazardous terrain.

Consult local experts and avalanche information Web sites, provide avalanche awareness courses, assemble avalanche rescue equipment, formulate rescue plans, and check the weather and the depth of local snow packs if working in avalanche-prone terrain. If at all possible, delay working in avalanche-prone areas until the threat of avalanches is no longer a concern.

When working in steep terrain, use the rainfall shutdown guidelines that include provisions for factoring in the snowmelt.

4.5 H_2S RELEASE - INITIAL RESPONSE STRATEGY

Seven Step Initial Response Strategy for a Hydrogen Sulphide Release:

1. **EVACUATE**
   Get to a safe area immediately.
   Move upwind if release is downwind of you.
   Move to higher ground if possible.

2. **ALARM**
   Call for help (man down) - sound alarm or call by radio.

3. **ASSESS**
   Do a head count.
   Consider other hazards.

4. **PROTECT**
   Put on breathing apparatus (SCBA) before attempting rescue.

5. **RESCUE**
   Remove victim to a safe area.

6. **REVIVE**
   Apply artificial respiration and CPR if necessary.

7. **MEDICAL AID**
   Arrange transport of victim to a medical facility.

In the case of an emergency, workers are required to protect themselves, alert others and alert the Company Representative to initiate the emergency response plan.

5.0 ENVIRONMENTAL STANDARDS

5.1 Workplace Hazardous Materials Information System (WHMIS)

The Employer has the responsibility to implement a WHMIS program and to ensure an overview of the program on orientation.

When working with potentially hazardous materials, the Workplace Hazardous Materials Information System (WHMIS) regulations must be adhered to and the basic elements must be communicated to all employees. MSDS sheets are located in each of the shop vans as well as in the kitchen at camp. All employees must complete the online or self administered WHMIS training program annually.

The Supervisor will ensure that all employees within his specific worksite are instructed and demonstrate that they understand WHMIS requirements. Instructions are to be updated annually or as required.

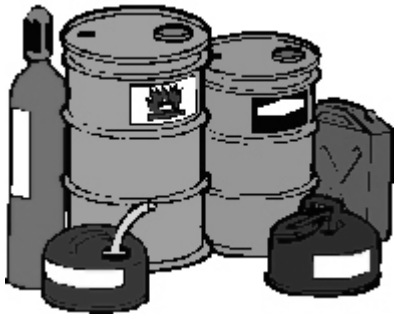
Material Safety Data Sheets (MSDS) will be readily available to workers either in printed format or available through the Supervisor by electronic means.

All products intended for use by the Company's employees will be received through the Supervisor.

No new products will be accepted without current MSDS.

All new MSDS's will be forwarded to the Employer before being released to the workers.

Workplace labels are to be used where no supplier label is available or on portable containers into which a product has been transferred.



5.2 Transportation of Dangerous Goods (TDG)

5.2.1 OVERVIEW

The Consignor (Shipper): is the person who offers a shipment for transport. That person must ensure that the goods are:

- Know the classification
- Complete a shipping document
- Mark and label packages
- Ensure that placards are available, if necessary

The Carrier: is the person who transports the goods - the driver must ensure that the goods are:

- Check the shipment before accepting
- Load goods properly
- Attach placards, if necessary
- Carry and deliver documents with the goods

If an accident or spill involving dangerous goods occurs during any phase of transport, the person in charge of the goods at that time is responsible for reporting the incident. They must immediately notify the following:

- The local police of that province
- Their Employer
- The owner of the vehicle
- The owner of the consignor of the goods

Other accidents or incidents, which may have to be reported, are included in the definition of Dangerous Occurrence:

- Damage to a bulk container of dangerous goods
- A transportation accident involving Radio-actives
- And unintentional fire or explosion involving dangerous goods

Before dangerous goods can be shipped, they must be classified. It is the responsibility of the manufacturer to determine which of the 9 Classes their product fits into, along with the Division and Packing Group.

Dangerous goods are separated into 9 Classes, based on a long established international system. Different colors, symbols and numbers are used to indicate the type of danger presented by each Class.

The order of the Classes does not indicate relative danger. Class 1 does not contain the "most dangerous" products and Class 9 the "least dangerous".

For every shipment of dangerous goods, the shipping document must include certain basic information. The shipper, carrier and consignee must be identified; the dangerous goods must be described; and a 24-hour emergency contact number must be provided.

The document must be dated and will be signed or marked by the shipper.

Section 3.5 of the TDG regulations list many items which may be required on a shipping document.

<u>The following items are required for every shipment of dangerous goods:</u>

- Date of document
- Shipper's name and address
- Consignee's name and address
- A description of the dangerous goods (in order):
  - Shipping name
  - Primary classification
  - Product identification number
  - Packing group
- Quantity of dangerous goods, including number of packages
- A 24 hour emergency telephone number

5.2.2 RESPONSIBILITIES

The shipper must ensure that the goods are properly classified and documented and shall sign and date the shipping document.

The loader shall ensure that the trailer is of the proper type for the dangerous goods and ensure the placards are placed on the vehicle prior to loading.

The driver shall compare their instructions with the shipping documents and if there are any discrepancies, the driver should seek clarification from their dispatcher prior to accepting the shipment.

The driver must ensure, before leaving the shipper's premises, that the tank is free of leaks and that the placards are properly applied.

During transportation, one copy of the shipping document must be kept either in a pouch in the driver's door or within the driver's reach when they are seated in the driver's seat. If the driver is not in the cab, a second copy shall be in the driver's possession.

When a trailer containing dangerous goods is dollied off, one copy of the shipping document shall be left with the person in charge of the area.

Any placards that are lost or become damaged while in transit must be replaced.

Upon delivery, the driver shall provide the receiver with a copy of the shipping document.

A copy of the original shipping document marked "Empty-Last Contained" shall accompany the vehicle after unloading if it still contains any dangerous residues.

When making multiple deliveries or split loads, the driver shall, after each delivery, indicate on or attach to the shipping document, the change in the quantity or the dangerous goods.

5.2.3 DOCUMENTATION AND PLACARDS

All shipments of dangerous goods must be accompanied by a shipping document containing specific information.

Placards identifying the class of dangerous goods being transported MUST BE ON DISPLAYED ON:

- Cargo tanks and tank containers containing dangerous goods or residues of dangerous goods from a previous load requiring a placard.
- Vehicles containing any quantity of poison gases, corrosive gases, organic peroxides, radioactive materials or hazardous wastes.

- Vehicles containing more than 500 kgs of all other classifications of dangerous goods.

The placard and UN numbers shall be displayed on all four sides of the vehicle.

5.3 FOREST AND RANGE PRACTICES ACT (FRPA)

Step 1: Always read and understand your plans and maps.

- This is risk assessment
- get the information you need to be able to make good decisions on the risks

Step 2: Always match your plan and map to what you find on the ground and then check that you can do the work.

- This is the beginning of risk assessment
- think before you start to make sure that you can do what is required in the plan
- decide the level of risks involved with the required tasks
- be aware that there could be resource features that are not identified on the plan

Step 3: Stop and ask if you cannot follow the plan and map.

- Risk management is knowing when something cannot be done because of high risk
- If in doubt, stop and ask
- Standard Operating Procedures are in place to help provide direction when the plan cannot be followed. Stop work and inform your Supervisor
- You must stop work if you come across an unidentified resource feature

Step 4: Know your responsibilities. Ask if you are unsure.

- knowing your responsibilities is part of managing risk
- All workers should know their role in minimizing the risk of environmental impacts through good forest practices

5.3.1 PLANS AND MAPS

Plans and Maps Should Have:

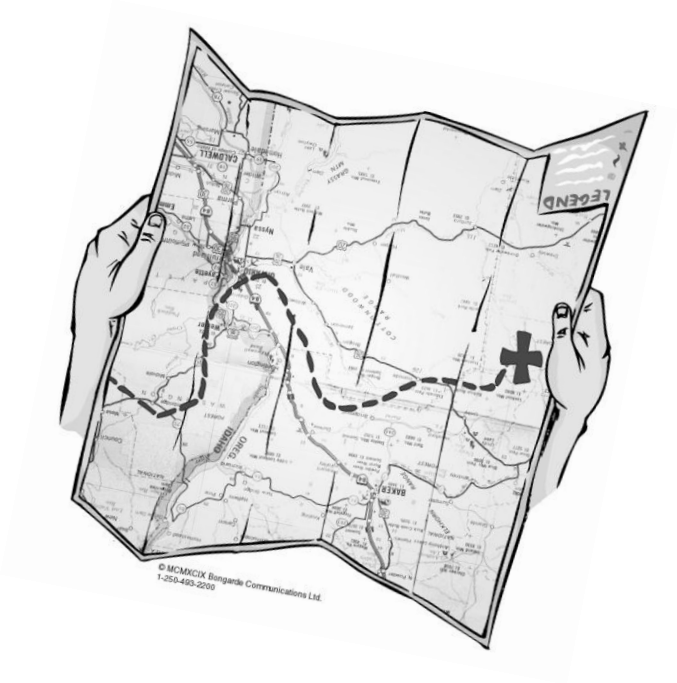
- North arrow
- Scale (i.e. 1:10,000 means 1cm on map = 100m in the field)
- Cutblock name and field marking, i.e. paint / ribbon color or blazes
- Cutting permit and hammer mark
- Road name/number and stations, paint and/or ribbon colors used for centerline, slope stakes etc.
- Date of map or map version
- “Drafted” and/or “Approved by”
- Explanation of map symbols used
- Explanation of color coding

Do Not deviate from the plan without permission from your Supervisor.

No one can or should make any changes to ribbon lines or location even if there is an obvious better location "When in doubt - stop work and ask your Supervisor".

If you see something that is obviously in a poor location and may lead to environmental damage, you must inform your Supervisor or Company person before you proceed.

Always match your plan and map to what you find on the ground and then check that you can do the work.



5.3.2 RIPARIAN MANAGEMENT AREAS

Riparian Management Areas (RMA's) are usually associated with some of the most sensitive sites on the block.

The Riparian Management Area (RMA) is the area adjacent to a stream. RMAs for larger streams consist of a Riparian Reserve Zone (RRZ) and a Riparian Management Zone (RMZ). RMAs for smaller streams, those without fish populations, or streams flowing into a community watershed consist of Riparian Management Zone (RMZ) only.

A variety of operational practices may be applied in the RMZ, ranging from clear-cutting to individual tree selection, while only very few activities are permitted in the RRZ. Your plans will specify which operational practices are permitted in the RMZ and RRZ.

RMA's are defined to maintain water quality, stream channel function and the aquatic ecosystem diversity by minimizing negative environmental impacts to lakes, wetlands and streams.

Machine traffic is not allowed within 5 meters of any stream bank, intermittent or not, ribboned or not.

If the ribbons are not there, follow the Standard Operating Procedures, stop work and inform the Supervisor.

Fall trees away from streams, lakes and wetlands. If this is not possible, check with your Supervisor, or leave the trees standing.

Unless the plans allow you to, do not fall or yard trees across streams.

Do not disturb or remove any natural materials that help keep the banks of streams, lakes or wetlands stable. This includes root systems.

Do not dump slash and other debris in streams, lakes or wetlands. Also be sure that you do not deposit this debris in areas like tributary streams. It could end up in other bodies of water.

5.3.2.1 STORING MATERIALS AND CHEMICALS

You cannot store materials like fuel, chemicals or culverts in a Riparian Management Area.

5.3.2.2 FUELING EQUIPMENT

You cannot fuel large equipment like bulldozers and skidders in Riparian Management Area.

You can fuel hand held equipment like chainsaws in Riparian Management Areas.

5.3.2.3 HARVESTING

You cannot harvest trees in a Reserve Zone.

The only exception is when you get special permission in writing from the District Manager; an official from the Ministry of Environment, Lands and Parks; and sometimes a Department of Fisheries and Oceans official or if a safety issue warrants removal.

5.3.3 SOIL CONSERVATION

5.3.3.1 SOIL DISTURBANCE

You must not disturb the soil more than the amount specified in the Silviculture Prescription.

5.3.3.2 PREVENTING DAMAGE

Make sure all crewmembers know where sensitive or unstable soils are.

Do Not build, excavate or blade trails unless the plans approve it.

When possible, use the snow pack as a barrier between heavy equipment and the soil.

On sensitive soils, use equipment that puts as little pressure as possible on the ground.

Build ditches where necessary, to maintain natural drainage patterns, and to avoid concentrating water flow.

Fall trees away from wet sites.

If operations are damaging the soil during poor weather conditions, shut them down.

5.3.4 HANDLING OF INVESTIGATIONS

If a government agency starts to ask questions about something that may be in contravention of the FRPA, ask them if this is an investigation.

If the answer is YES, you must contact your Supervisor or his alternate as soon as possible.

Refuse to answer any questions without having a Supervisor present.

Answers to questions should be restricted to firsthand knowledge of facts. Your opinion must not be volunteered and **Do Not** admit guilt.

Do Not sign or initial any statements they have prepared.

You Should Ask:

- under what statute or regulation is the investigation being conducted
- what environmental incident is being investigated
- who is being investigated; the Company, individuals or both
- insist that all questions be written and answers will be given at a later date

You Should:

- Take comprehensive notes during the investigation. Take time after the government official leaves to summarize what took place
- request copies of any photos they take
- request copies of all written statements about to be taken
- insist that all questions be written and answers will be given at a later date

If you haven't contacted the Supervisor, then do so at the earliest opportunity, or within 24 hours.

5.3.5 DUE DILIGENCE

Due Diligence, is simply the worker exercising reasonable judgment in carrying out his or her duties.

Following a work plan given to you by your Supervisor; if you can do the work, stopping and checking if you are unsure.

Asking questions when you are unsure of something in the plan or when difficult situations come up.

Doing your job the way a reasonable, competent worker should in a situation.

Without proper instruction, proper direction, and proper control elements, the Company, the contractor and their Supervisors are liable under the Forest Practices Code.

5.3.6 MARKING STANDARDS, RIBBONS AND PAINT

Standardization of field marking is in progress and you may encounter a lot of inconsistencies between blocks.

It is important to understand what each colored ribbon represents in that block.

5.4 FUEL HANDLING, TRANSPORTATION and STORAGE

5.4.1 SMALL CONTAINERS < 230L - Canisters, Jerry Cans, Drums

5.4.1.1 DESIGN

- Containers < 230L, used to store flammable or combustible liquids, must meet appropriate design criteria and be properly labeled according to WHMIS.
- Containers must not leak, and must be sealed with a proper fitting lid or cap.

5.4.1.2 OPERATIONS

Safety/Spill Awareness

- Spills of TDG Class 3 - flammable liquids > 100L must be reported to the Provincial Emergency Program (PEP) at 1-800-663-3456.
- Post Spill Response Procedure and have appropriate spill response equipment available.
- Liquid spills and leaks shall be removed with the aid of absorbents and disposed of in an acceptable manner.
- Fire extinguishers must be on site, approved and current.

Dispensing

- All sources of ignition must be eliminated or removed while refueling.
- No smoking must be enforced around flammable liquids.
- Containers must not be filled beyond their safe filling level; this level should be approximately 90% capacity.

Storage

- Use equipment boxes to store containers of 5 gallons (23 litres) or less, this keeps the containers from bouncing out of the vehicle.
- Store in such a way so as to prevent drips, leaks and spills from entering into the environment.
- Fuel caches: contain by using mobile drum containment unit, geotextile material or some other means to contain volume being stored and use properly constructed facility for storing more than 4 drums.

5.4.1.3 TRANSPORTATION

Load Security

- All drums must be transported upright and properly secured to the vehicle to prevent shifting or swaying in any manner.
- Tie downs are to be in good condition and have a marked safe working load sufficient to restrain load secured.

5.4.1.4 DOCUMENTATION & TRAINING

- TDG training or documentation is not required if the total fuel capacity of all containers is < 2000L.

5.4.2 SMALL TDG TANKS < 450 L - Truck Box Fuel Tanks

5.4.2.1 DESIGN

- Containers < 450L, used to store flammable liquids, must meet UN31 standard, placarded and properly labeled according to WHMIS.
- Containers manufactured to ULC/ORD 142.13 standard may be used until January 1, 2010.

5.4.2.2 OPERATIONS

Safety/Spill Awareness

- Spills of TDG Class 3 - flammable liquids > 100L must be reported to the Provincial Emergency Program (PEP) at 1-800-663-3456.
- Post Spill Response Procedure and have appropriate spill response equipment available.
- Liquid spills and leaks shall be removed with the aid of absorbents and disposed of in an acceptable manner.
- Fire extinguishers must be on site, approved and current.

Dispensing

- All sources of ignition must be eliminated or removed while refueling and ensure static electrical charges are controlled. No smoking must be enforced around flammable liquids.
- Post a sign with site-specific fuel handling and operational procedures.
- Containers must not be filled beyond their safe filling level; this level should be approximately 90% capacity.
- Nozzles are to meet acceptable standards, if fitted with an integral hold-open device it must be fitted with an automatic shut off and break-away coupling.
- **Do Not** jam nozzle open and leave unattended.
- Fuel dispensing pumps must be maintained and meet all applicable standards.
- Hoses and nozzles must be maintained in good repair, nozzles placed in some form of drip containment.
- Do not fuel or service machinery within a riparian management area or lakeshore management area.
- Install permanent filling funnel and an overflow protection whistle on all slip tanks.

Storage

- Secondary containment is required if a tank that is > than 230L is removed and left in fixed location for any length of time.
- Secondary containment is not required for tanks mounted in trucks.
- The slip tank shall be secured to the vehicle using either security straps or bolt/weld to frame of truck.
- Place a thick rubber mat or plywood under the slip tank to prevent the tank from rubbing on the truck box platform and preventing stress cracks.
- Ensure that the slip tank is regularly inspected for leaks and cracks.

5.4.2.3 DOCUMENTATION & TRAINING

- TDG and Spill Response training recommended, however, documentation is not required.

5.4.3 LARGE TDG TANKS > 450L - Tank Vehicles

5.4.3.1 DESIGN

Tank Trucks

- Must meet CSA B620-1987 standard, placarded and properly labeled according to WHMIS.
- Inspection Requirements:
  - inspection by a registered facility
  - visual inspection every two years and pressure tested every 5 years

Trailers & Semi Trailers

- Must meet UN31A or UN31B standards, ULC/ORD standard is acceptable until January 1, 2010, placarded and properly labeled according to WHMIS.
- Inspection Requirements:

5.4.3.2 OPERATIONS

Safety/Spill Awareness

- Spills of TDG Class 3 - flammable liquids > 100L must be reported to the Provincial Emergency Program (PEP) at 1-800-663-3456.
- Post Spill Response Procedure and have appropriate spill response equipment available.
- Liquid spills and leaks shall be removed with the aid of absorbents and disposed of in an acceptable manner.
- Fire extinguishers must be on site, approved and current.

Dispensing

- All sources of ignition must be eliminated or removed while refueling and ensure static electrical charges are controlled. **NO SMOKING** must be enforced around flammable liquids.

- Post a sign with site-specific fuel handling and operational procedures.

- Containers must not be filled beyond their safe filling level; this level should be approximately 90% capacity.

- Nozzles are to meet acceptable standards, if fitted with an integral hold-open device it must be fitted with an automatic shut off and break-away coupling.

- Do not jam nozzle open and leave unattended.

- Fuel hose length must not exceed 4.5m, or 6m where a retracting system is used.

- Hoses and nozzles must be maintained in good repair, nozzles placed in some form of drip containment.

- Do not fuel or service machinery within a riparian management area or lakeshore management area.

5.4.3.3 TRANSPORTATION

Trailers:

- ensure surge brakes on all trailers are working
- use dual chain connection to vehicle
- trailer certified and licensed for road use by the Motor Vehicle Branch
- ensure all the appropriate lights are working
- use only an appropriate locking hitch connection

Skid Mounted Fuel Tanks:

- transport by low bed trailer over extended distances
- tank should be inspected and certified yearly
- skids must be protected by a cradle to prevent heavy wearing and chafing of the tank

Non-commercial Fuel Trucks:

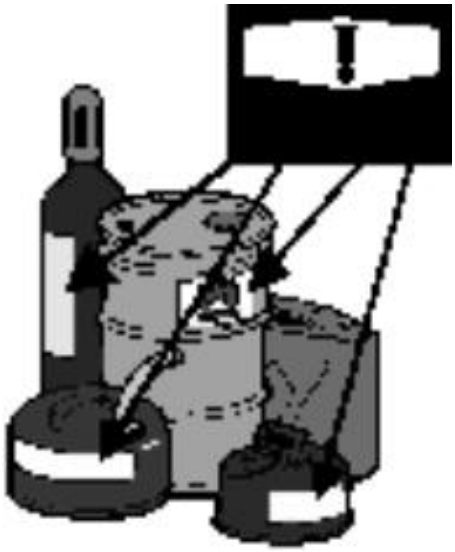
- ensure parking brakes and chock blocks are maintained
- the tank shall not be leaking or damaged
- dome covers shall be closed and secured at all times
- close valves and lock valve cabinet when not operating

Containment:

- Grade the site to divert and contain an accidental spill.
- Size of containment must be sufficient size to contain the volume of the tank plus 10%.
- Select a site that will be least likely to cause an impact on the environment should a spill occur.
- Should have a spill containment system.
- Containment system should be covered to minimize the accumulation of rain or snow.

5.4.3.4 DOCUMENTATION & TRAINING

- Documentation required for more than 2000L and TDG, Spill Response training required.
- Empty tanks being low-bedded must have “Residue - Last Contained” on shipping document.



6.0 SAFE WORK PRACTICES

6.1 GENERAL SAFE WORK PRACTICES FOR WORKERS

- It is the responsibility of every employee to be familiar with safety regulations and comply with them.
- Use prescribed personal protective equipment:
  - Eye protection – Safety glasses or face shield.
  - Head protection – suitable cloth cap to protect the head from dust, dirt, etc. Hard hats must be worn if overhead hazards are present.
  - Hi-Vis Vests are required if the worker will be exposed to moving equipment.
  - Foot protection – safety-toed work boots with non-slip soles are required.
  - Hand protection – suitable gloves to protect the hands for the job performed.
  - Leg protection – required only if a chain saw is being utilized in the job site.
  - Hearing protection – deci-damps or muffs are required.
  - Respiratory Aids – should be available to the worker as the need arises due to the job hazards.
- Use the correct tools and equipment for the job.
- Report all injuries.
- Correct and report to Supervisor all unsafe conditions and acts.
- 'Horseplay', fighting, and tampering with equipment is prohibited.
- Verbal, physical, and sexual harassment will not be tolerated.
- No employee shall use or be under the influence of drugs or alcohol while on the job or operating Company equipment.
- Follow instructions. If you are unsure of the correct method of doing the job, contact you immediate Supervisor.
- Do not operate equipment, vehicles or machinery without the proper training and permission from the Supervisor.
- Tools and equipment not in safe operating condition must be reported to the Supervisor.
- For operation of equipment:
- Emergency Equipment
- First Aid Kits – a kit should be kept on the piece of equipment in case of laceration or a puncture wound, check with the Supervisor as to what sized kit is required.
- Fire extinguishers.
- Fire Tools – as per the Supervisor's direction.
- Communications radios – if the piece of equipment will be separated from the main body of workers for a period of time.
- Practice good housekeeping at all times.
- Set a good example.

6.2 Safe Work Practices - Camp

- Premises of the camp shall be maintained in such condition that employees shall not be endangered.
- Regular inspections shall be made of the camp premises to ensure that safe working conditions are maintained.
- Fire extinguishers and smoke alarms shall be checked on a monthly basis.
- Emergency lighting shall be in place and operational in the event of a power failure.
- Eye, ear and respiratory aids shall be provided where needed to ensure safety at all times for the employee.
- Adequate illumination should be provided to ensure the proper safety for the employees.
- Every flight of stairs greater than four risers shall be equipped with handrails.
- Floors and walkways used by workers shall be maintained free from tripping objects, spillage of liquids, and in good repair.
- No materials should be stacked or stored in such a manner to constitute a hazard for the employee. Materials should be strapped or secured, if unstable.
- Proper ventilation shall be provided for the employees if hazardous vapors are present.
- Set a good example
- No smoking while refueling vehicles or equipment

6.3 Safe Work Practices - Camp Catering

- Proper footwear with non-slip soles shall be worn to prevent slipping or stumbling.
- Open-foot shoes or sandals are not permitted in the kitchen. Employees shall not enter the dining or kitchen area with bare feet.
- Exhaust fans shall be operational when using the grill or stoves to prevent excessive heat and fumes
- Employee shall be aware and understand how to operate the CO_2 system (fire suppression) in the kitchen area.
- Fire extinguishers shall be inspected monthly.
- Floors and walkways used by employees shall be maintained free from tripping objects, spillage of liquids and in good repair.
- No materials should be stacked or stored in such a manner to constitute a hazard for the employee. (Materials should be strapped or secured, if unstable).
- Electrical plug-ins or devices should not be operated or handled with wet hands where electrical shock could occur.
- Gloves shall be worn when handling abrasive, acidic, or caustic substances.
- Good housekeeping should be practiced to ensure cleanliness and hygiene for the other employees.
- Set a good example.

6.4 Safe Work Practice
- Barricading and Posting Falling Hazard Areas

Responsibility

- It is the responsibility of the Supervisor to provide barricading and posting signs to prevent injury where fallers and/or machines create an overhead falling hazard.
- It is the responsibility of all fallers or operators to notify the Supervisor when hazardous falling by roadways will commence.
- No worker or vehicle shall proceed past a barricade point without permission from the Supervisor or radio communication permission from the faller or operator doing the falling.
- No worker or vehicle shall proceed past a barricade point without permission from the Supervisor or radio communication permission from the faller or operator doing the falling.

Procedures

- Appropriate “Active falling in progress” signage will be posted when falling is not hazardous to the roadway.
- In areas where the falling is hazardous to the roadway, the road will be closed to all vehicular traffic.
- Signs with “Active falling in progress – Radio contact required before proceeding” and the radio frequency will be posted on the sign.
- A barricade partially obscuring the roadway will accompany signs closing a road.
- Fallers or falling machines will carry signs and/or barricades in their vehicles to post and place as necessary

6.5 POWER EQUIPMENT AND TOOLS

No worker shall use any power tool, or similar type of equipment, unless he/she is familiar with the use and operation of the equipment or had received specific instruction in its use and operation.

Instruction in the use, handling and maintenance of power tools, or similar tools, will be given to workers who require it.

Only qualified or specially trained workers may alter, repair, or otherwise tamper with electrical equipment or electrical tools.

6.5.1 RE-OCCURRING HAZARDS

All safety hazards regardless how minor in nature shall be addressed by the Supervisor. If maintenance is required, the Supervisor will direct in a prompt manner. The progress will be communicated back to the employee as soon as possible. If the hazard cannot be dealt with in a timely fashion, then the Supervisor shall communicate this back to the employee giving a completion date if possible. The Supervisor shall ensure the area is safe until it has been repaired.

6.5.2 SAFETY GUARDS

No employee of the Company is permitted to intentionally remove, impair or render ineffective any safety guards installed for the protection of workers.

6.5.3 SUSPENDED LOADS

No worker may enter under any suspended load for any reason unless the load is restrained by blocks, chains or another way of preventing the load from descending unexpectedly.

6.5.4 LIFTING - MANUALLY

Employees when lifting manually must be aware of proper lifting techniques, and personal endurance so as not to endanger their back. All precautions and mechanical aids when necessary shall be implemented.

Lifting Tips

Size up the load:

- Look at the weight label on the package.
- Lift one corner to gauge the weight.

Stretch & exercise:

- Stretch exercises will warm up the back, arm and leg muscles.
- Cold stiff muscles are easily injured.

Plan your route:

- Ensure you know where you are going with the object.
- Check the route for obstacles.

- If walking a long route with your load, pre-plan stop spots for short rests, or better yet, use a hand truck for long distances.

Protect your hands:

- Examine all loads for sharp edges, metal staples or leaks.
- Wear gloves where necessary. Especially for protection from excessively hot or cold objects

Lift the object properly:

- Get close to the article and center your body over your feet.
- Bend your knees.
- Keep your spine straight.
- Use your leg muscles to push yourself straight.
- Raise your eyes. This will keep your spine in correct alignment.

Keep the load close to your body:

- This will exert less force on your back.

Make sure your vision is clear:

- Ensure you can clearly see over the load. If vision is blocked, you could trip and fall.

To change direction:

- Move your feet rather than twisting your body to change direction.

Unload properly:

- Plan ahead. An ideal height would be waist height to prevent unnecessary bending.

Difficult loads:

- Ask for assistance. Try to find someone close to your height. This will make the lift easier.
- Decide who team leader is when more than one person is involved in the lift. Coordination of movements will prevent sudden starts or stops and changes in weight distribution.
- Use mechanical assistance such as hand truck, or pallet mover, (ensure you know proper operation procedures of the equipment. If not, ensure you ask your Supervisor).
- To lift an awkward object (such as a sack), bend at the knees and grasp it at opposite corners. Gradually straighten your legs and push yourself up. Hold the load close to your body and at about waist height.

6.5.5 COMPRESSED AIR

Compressed air hoses present a serious hazard when used incorrectly, or when fittings become worn or damaged. Compressed air must never be used to clean hair, face, arms, hands or clothing. Blowing dust from clothing on the body can cause skin damage, ruptured eardrums, and eye injuries and, if used on skin where a small cut is present, air may enter the bloodstream.

Horseplay with air hoses, such as disconnecting them with the feet, or startling others by blowing air at them, is extremely dangerous and will not be tolerated.

When using compressed air to clean parts of machinery, protective screening and goggles, or a face shield must be worn. Restraining devices shall be used on connections of hoses and/or pipes, which are under pressure, when inadvertent disconnection could cause a reaction harmful to workers.

Subject to **OH&S Regulation Part 4, Section 4.42**, compressed air shall not be used for blowing hazardous dusts or other harmful substances from clothing being worn by workers. WSBC has had recent recorded cases of serious injury caused by this practice. Therefore, it is advisable to use extreme caution with compressed air.

Using compressed air for blowing down equipment can be extremely dangerous.

6.5.6 POWER LINES

Qualified personnel only, are to operate equipment in the immediate area of a power line.

If at any time a piece of equipment or load on a truck comes in contact with a Power Line DO NOT get out of the machine or truck. If Not hooked on the line attempt to drive away slowly from the Power Line. Radio or contact the Supervisor immediately.

Should evacuation of vehicle or equipment be necessary while in contact with a Power Line, jump as far away from equipment as possible, land with both feet closed together, then jump away from the vehicle by hopping with both feet.

Never allow anyone to come near the equipment or truck while it is hooked onto the Power Line.

6.5.7 EXCAVATIONS

Excavations must be carried out in accordance with Occupational Health and Safety Regulation Part 20. A professional engineers report addressing support structures or sloping requirements including written instruction, may be required on certain types or excavations.

6.5.7.1 UTILITY IDENTIFICATION

Prior to the start of excavation, utility services in the area must be located and marked;

- electrical
- telecommunication
- gas
- water
- sewer

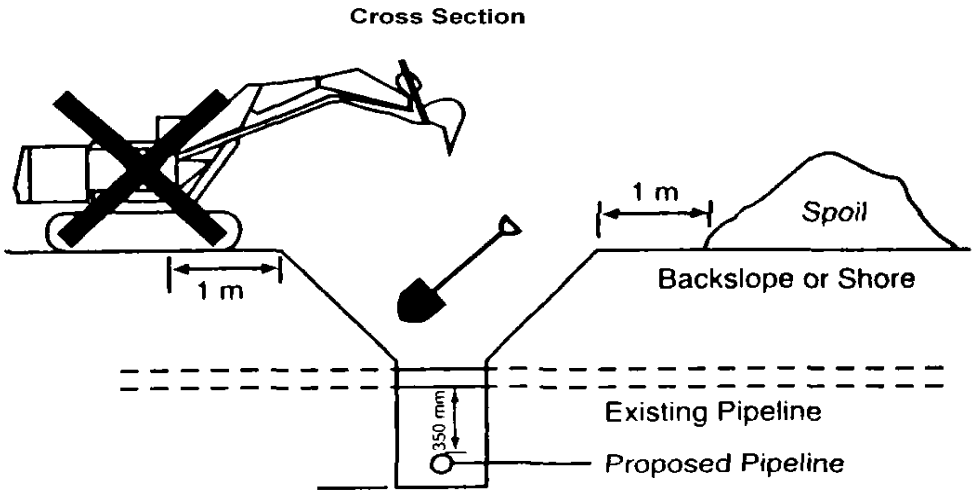
6.5.7.2 HAND DIGGING

Workers Must:

Not hand-dig a vertical wall deeper than - 1.22 meters (4 feet)

Note: depth is limited to protect workers who are hand digging inside the ditch.

When hand digging, the mechanical equipment must be stopped.



6.5.7.3 MECHANICAL EXCAVATION

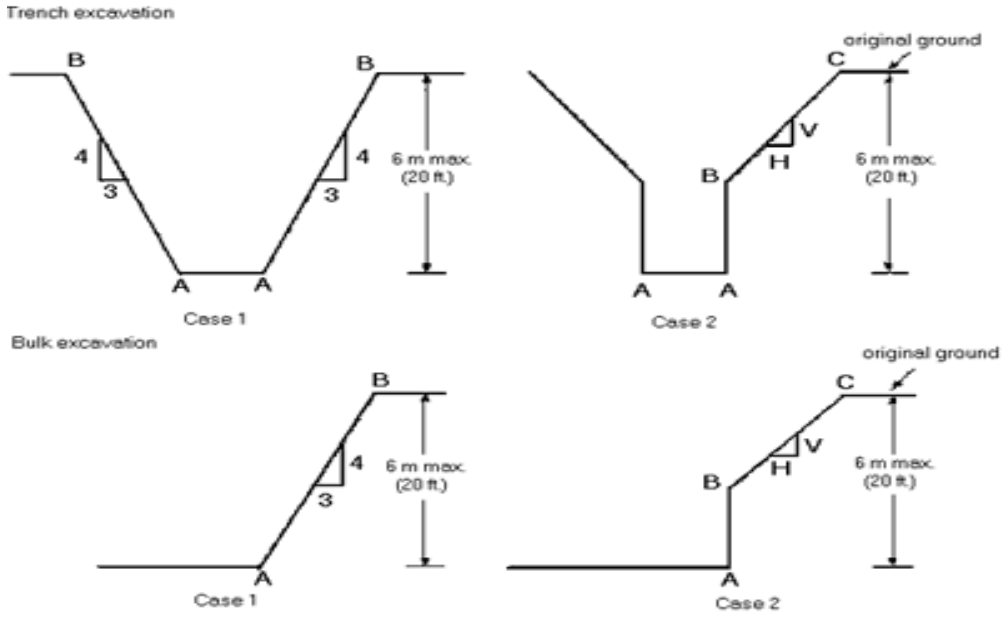
Excavation slopes or shoring must be inspected daily or more frequently if required and must be determined to be sound.

The sides of an excavation must be trimmed or scaled to remove any loose material that could endanger workers.
A level area extending 1 meter (3.5 feet) back from the edge of the trench must be maintained free of materials and equipment.

An excavation over 1.5 metres (5 feet) a ladder must be available in the immediate area of the workers. The ladder shall be as such a length that it goes from the bottom of the excavation and extend 1 meter above the ground.

Under no circumstances may excavated material be piled so that it endangers workers.

Figure 20-1 Sloping in lieu of shoring



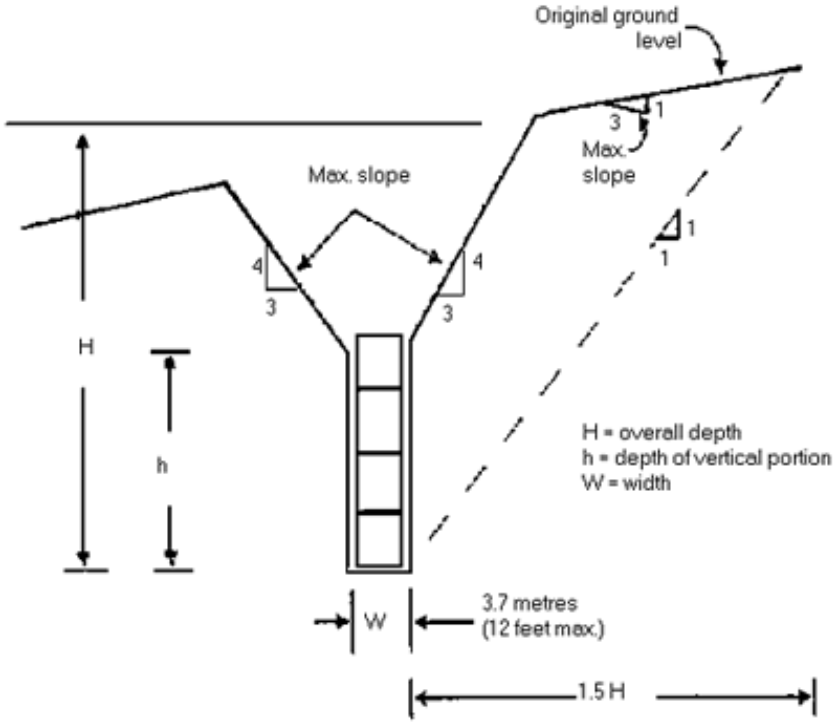
Case 1 (trench or bulk excavation) - maximum slope of excavated face, shown as line AB, in hard and solid soil is 3 horizontal to 4 vertical.

Case 2 (trench or bulk excavation) - maximum height of vertical portion, shown as line AB is 1.2 metres (4 feet)

For Case 2 (trench or bulk excavation), the maximum possible slope of the excavated face BC for the corresponding height of the lower vertical cut AB is as follows:

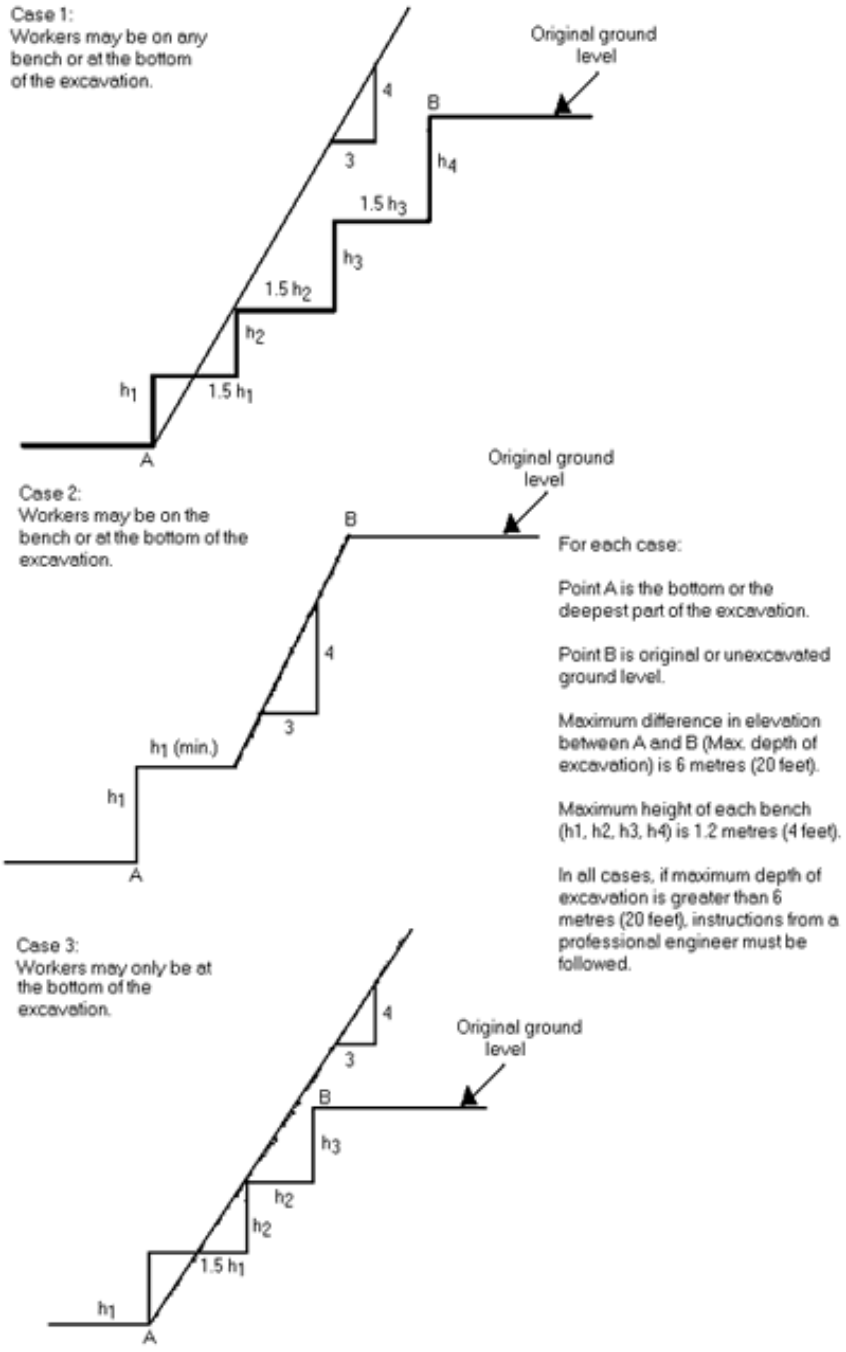
Height of line AB Centimeters feet	Maximum slope of line BC (in hard and solid soil)
up to 30	up to 1 1 horizontal (H) to 1 vertical (V)
30 to 60	1 to 2 3H to 2V
60 to 90	2 to 3 2H to 1V
90 to 120	3 to 4 3H to 1V

Figure 20-3: Combined supporting and sloping



Shoring must be adequate for excavation depth H.
Depth H cannot exceed 6 metres (20 feet).

Figure 20-2: Benching in lieu of shoring



Manufactured or prefabricated support systems including trench boxes and shoring cages must be designed and certified by professional engineer. The certification must show how and for what soil types and depths the support system may be used, and must be available at the site during the use of the system.

No worker shall enter a trench or excavation unless Occupational Health and Safety Regulation have been met.

A worker does not have to be completely buried in soil to be seriously injured or killed.

Workers who have been only buried up to their waist have died as a result of the pressures exerted by the soil on their bodies.

Excavations in, or near, back-filled or previously excavated ground are especially dangerous since the soil is loose and does not support itself well.

Water increases the possibility of a cave in. The increased water pressure exerted on the soil can be the final factor in causing the walls to collapse.

It is not safe to assume that because the sides of an excavation are frozen that it is safe to enter. Frozen ground is not an alternative to proper shoring.

Should a ditch or excavation fail, do not attempt rescue with mechanical equipment.

6.5.8 BACKFILL

No backfilling shall be commenced until all workers are clear of working area.

The operator of any equipment employed in backfilling operations shall ensure that all workers are in the clear before approaching the ditch, or dumping the load.

Dumping of loads will be as directed by the spotter signals to be used shall be in place prior to dumping.

Special attention must be paid to all overhead Hydro, Power and Telephone lines.

6.5.9 HYDRO - VAC

Locate, stake and identify the facility to be excavated and all facilities near the excavation using standard procedures.

With station or other facility compounds it may be necessary to use “as built” site drawings and Hydro-Vac to accurately locate pipe and other buried objects.

Park Hydro-Vac truck on stable ground making sure that it will not affect any above-ground or buried facilities.

Begin removal of the soil around the targeted facility ensuring that the appropriate personal protective equipment is worn. If the excavation site is to be left unattended, the entire site must be fenced off.

Care must be taken to ensure that the trench walls conform to all applicable regulations prior to entry.

6.5.10 PREPARATION OF RIGHT-OF-WAYS

Working Close to Overhead Power Lines:

All Managers and Supervisors shall be familiar with the provisions of Sections 19 of the Industrial Health and Safety Regulation on working in proximity to electrical conductors, especially overhead power lines.

Occupational Health and Safety Regulation regarding working close to overhead power lines shall be applied wherever work must be performed close to power line conditions.

Supervisors shall ensure that where power lines may contact Company equipment in normal use, the Hydro Company is to be immediately notified to modify the lines to permit specifications.

6.5.11 TRAFFIC CONTROL

Control of traffic in construction zones shall be done in accordance with Occupational Health and Safety Regulation.

Where required, a traffic control plan must be submitted to local regulatory authorities.

All personnel engaged in flagging will be dressed as follows:

- High visibility vest
- Fluorescent stop and slow paddles
- And during the night a red flashlight or similar signaling devise

All traffic signs and traffic control devices used on the job site will be installed for the safety and convenience of the traveling public.

Barricades, blinkers, or flares, warning signs and/or temporary fencing shall be erected on each side of the road or railroad before excavation commences.

6.5.12 COMPRESSED AIR TOOLS

Hearing protection shall be worn by any worker who is in proximity of a working air tool that exceeds the safe noise level (85 dba.).

When connecting air hoses, a positive lock system is to be used such as safety clips on universal type fittings or anti-whip lines.

Hoses and fittings are to be checked periodically for damage.

Air supply at the compressor shall be shut off and the tool bled before disconnecting a hose.

It shall be ensured that all guards, covers, controls or other safety devices are not missing or inoperative.

The immediate work area shall be kept clear of all unauthorized personnel.

An air tool shall not be used for any purpose other than that for which it was intended.

6.5.13 SMALL ENGINE EQUIPMENT

When refueling small gas engines the temperature of the equipment will be cool enough to avoid combustion in the event of spillage.

All engines will be operated in a well-ventilated area. If required to operate in deep trenches or enclosed vans, sufficient ventilation or exhaust hoses must be used.

6.5.14 RIGGING
Occupational Health and Safety Regulation Part 15.

The working load on wire ropes, chains, slings, hooks and fittings shall not exceed the safe working load warranted by the manufacturer.

If safe working load is unreadable contact the Supervisor as the rigging may be deemed unsafe, therefore new rigging may be provided.

DO NOT guess on safe working load.

Ropes, wire ropes, slings, chains, hooks, and fittings shall be inspected thoroughly at regular intervals and when found to have deteriorated to such an extent as to make them unsafe for use, they shall be discarded.

When shackles are used, shackle pins shall be secured to prevent accidental withdrawal.

When U-bolt type clips (wire rope clips) are used for fastening wire rope, the U-bolt shall be installed so that it bears on the short or "dead" end of the rope and the number of clips and their spacing and torque shall be as follows:

Diameter of Wire Rope		Number of Clips	Spacing Between Clips Centre To Centre	Amount of Rope Turn Back From Thimble
Inches	MM			
1/4	6	2	1-1/28	4 3/4
5/16	8	2	251	5 1/2
3/8	10	2	2-1/4 57	6 1/2
7/16	11	2	2-1/26	7
1/2	13	3	376	11 1/2
5/8	16	3	102	12
3/4	19	4	4-1/2 114	18
7/8	22	4	5-1/4 133	19
1	25	4	152	26
1-1/8	29	5	7 178	34
1-1/4	32	5	8 203	37
1-1/2	38	6	9 229	48
1-3/4	44	7	10-1/2 267	53
2	51	8	305	71
2-1/8	54	8	13 330	72
2-1/4	57	8	14 356	73

Double saddle type clips shall be used in similar numbers and spacing.

Where a wedge socket connector is used as a wire rope terminal, the dead end of the rope shall be looped back on itself and secured with a single cable clip.

Slings shall be protected from sharp corners of the load and adjusted to equalize the strain before the load is lifted.

Gloves shall be worn by workers when handling wire rope.

The pull on an eye-bolt shall always be in line with the bolt

A lift shall never be made with a kink, knot or twist in a chain or wire rope.

Hooks:

- All hooks shall be of forged steel or built up steel and no hooks shall be used for purposes for which they were not designed.

- Hooks which have opened more than 15% of the normal throat opening measured at the narrowest point, or twisted more than 10 degrees from the original plane of the hook, or are cracked or otherwise defective, shall be permanently removed from service.

- Hooks, shackles, etc. should have the name of the manufacturer and capacity indicated.

See Occupational Health and Safety Regulation Part 15; Figures 15-1 for Standard Hand Signals.

6.5.15 HOUSEKEEPING

Good housekeeping is a basic part of accident and fire prevention and is more than cleanliness; it is cleanliness and order. Employees must cultivate good housekeeping habits, which shall be maintained by observing the following practices:

- all working areas shall be kept clean and free from obstructions at all times

- working areas shall be left clean and tidy on the completion of work assignments and at the end of each shift

- any spillage or leaks must be reported to the Supervisor for cleanup Immediately

- garbage, scrap and waste must be placed in metal containers for disposal

- all exits must be clear of obstructions

- All substandard conditions must be reported immediately

7.0 HARVESTING SAFE WORK PROCEDURES

In order to ensure that all work is performed with a minimum amount of hazard to employees, a guide to Safe Work Procedures must be developed for all jobs.

Effective communication between workers is a must on any logging operation. Workers must know where everyone is at all times and must have an established procedure to advise others of their movements if they are considering entering a dangerous area.

Many fatalities and serious injuries have occurred when a tree has been felled onto a fellow worker, a machine has struck a worker, or a tree being skidded has jill-poked. The comment most often heard is "I Didn't Know He Was There".

The work areas of employees in a logging operation are continually overlapping and changing (for example, the faller and skidder operator) and extreme caution must be taken to ensure effective communication.

Before entering an active falling area, an adequate signaling procedure must be established and enforced. **(Refer to Section 3.12 Working in Close Proximity)**

Workers must keep themselves physically fit and mentally alert at all times. Any form of impairment is deadly, and must not be permitted.

Each job has requirements for personal protective equipment, and workers must be adequately instructed in the proper use of such equipment. Employees must then use and care for this equipment. **(Refer to Section 3.7 PPE)**

In a logging operation, the actions of one worker has a big impact on the safety of others.

IT IS IMPERATIVE that all crew members wear Hi-Vis clothing and Hi-Vis hard hats when working around logging equipment and helicopters. **Refer to OHSR Part 8; Sections 8.11 and 8.24, and Part 26; Section 26.7**.

7.1 STANDARD OPERATING PROCEDURES (SOP)

All operations will be in accordance with occupational health and safety regulations, Company and contractor policies.

All operations will be conducted in accordance with Ministry of Forest regulations and Company fire pre-organization plan.

All operations will be conducted in accordance with Ministry of Environment regulations, Company fuel, hazardous waste and spill procedures and ISO14001 Environmental Management System.

Operations that are not in accordance with approved plans or procedures will be reported immediately to the contractor or Company Supervisor.

7.2 FALLING SOP

7.2.1 PREPARING TO FALL

No worker must be allowed to fall trees until he has demonstrated to his Employer that he is qualified to do so, in accordance with the **WSBC and BC Faller Training Standard**.

Fallers and Buckers Procedures comply with the **WorkSafe BC Occupational Health and Safety Regulation Part 26; Sections 23, 24, 25, 26, 27, 28, 29 and 30.**

Fallers must have an up-to-date Logging Plan Map.

Fallers must stop work if encountering a boundary or ribbon line not covered in a briefing by the Logging Contractor Supervisor.

Contractor must ensure that the fallers are aware of:

- PPE requirements
- Different falling specifications required in the Logging Plan Map, Road Permit, Cutting Permit, ribboning convention and/or Silviculture Plan
- Riparian areas, special management areas, wildlife trees and the prescriptions for these areas
- Utilization standards
- All safety, Occupational Health and Safety Regulation, fire prevention requirements and regulations
- Walk and/or review work area with Supervisor before falling begins or on a new block
- All paint and ribbon lines and their significance
- Sign pre work sheet acknowledging discussion and understanding
- Man check procedure

Man check or Buddy System

Fallers will follow Frost Lake Logging Ltd. Man Check System for fallers:

The responsibility of who is checking on whom must be assigned and this responsibility must be carried out.

- When a Supervisor is called upon for other matters the Supervisor will designate another worker to assume the responsibility of carrying out the man check system.
- Right-of-way fallers will not work more than twenty minutes walk from transportation or First Aid facilities.
- When two fallers are working together they must:
    - Stay 2 tree lengths apart
    - Notify each other when approaching worksite
    - Follow discussed plan from Supervisor
- Fallers and/or other workers designated in a checking system should, wherever possible, eat lunch together.
- A checking system must be in place to ensure that all workers are accounted for at the conclusion of each shift.
- Qualified assistance will be readily available to fallers in case of difficulty, emergency or injury.

Fallers must ensure that all workers are clear of the hazardous area before a tree is felled.

The distance between fallers at work and other workers shall be not less than two tree lengths.

Fallers shall be located within a reasonable distance of other workers so the safety checks can be made. Where this is not possible, a more formal man check system is to be followed.

Should any person wish to approach within two tree lengths of active falling, they must first receive a signal from the faller indicating that it is safe to approach.

Adjacent brush or snow must be cleared away so that there is adequate workroom and a quick get-away route in the event of trouble.

The faller will maintain radio contact or visual contact with Supervisor and fellow workers at predetermined man check times.

All snags will be felled concurrently with standing green trees.

When within range of a traveled road or railway track in use, no trees shall be felled unless effective means are used to stop all approaching traffic until the tree is felled.

Check carefully and frequently to ensure that the tree you are about to fall cannot strike any standing or running line of any equipment.

Do not start to cut a log or tree if the log or tree is considered to be in dangerous circumstances, or if there is a reasonable probability that the cut cannot be completed.

Do not attempt to fall a tree if wind conditions are adversely affecting the control of the direction of fall or the reaction of the tree to the cutting.

Carefully examine the area in which you are about to fall, for dangerous trees or widow-makers.

Take extra care when preparing to fall a tree when snow is on the branches.

Ensure wedging tools are readily available before starting a cut.

Fuel and service equipment away from all water bodies and in designated areas only.

Know Emergency Spill Procedures.

7.2.2 COMMENCING TO FALL

Review rib boning convention.

Review and follow management objectives in regards to diameters, length, quality and species.

Never leave a partially cut or hung-up tree standing. Bring it down or report it to the Supervisor immediately.

Domino falling is prohibited.

Cut-block boundaries and riparian areas to be felled during daylight hours.

Review and comply with all requirements of Riparian Management Area as identified in the Silviculture Prescription or the Logging Plan Map.

Operate equipment to minimize fiber loss.

Have and review map identifying sensitive areas in relation to natural features and terrain, to ensure feasibility of approved skid direction.

Observe all conditions of any special management areas.

Fall within approved areas only.

Position slash according to Cutting Permit and Logging Plan Map.

Dangerous trees shall be felled before live trees, and when possible into open areas. When falling dangerous trees, minimize use of wedges due to the danger from breaking limbs or tops.

All dangerous trees within the block and on boundaries are to be felled concurrent with operations.

Trees are not to be felled to outside of boundaries unless specifically authorized in writing.

Trees are to be felled away from creeks, draws, lakes, special management areas, and wildlife areas.

Do not cut off either corner of the holding wood on the tree unless it is required to overcome a falling difficulty.

Do Not work under hang-ups; knock them down with another tree.

Use wedges for control of the tree; be certain wedges are started in good time.

Make your undercuts and backcuts horizontal. The back cut should generally be 2 to 3 inches above the level of the undercut. Clean out the undercut completely and ensure sufficient holding wood is maintained and that the back cut is higher than the undercut to provide a step on the stump.

Fallers must ensure that any obstruction to felling is cleared and a safe escape route to a predetermined safe position is prepared.

Ensure falling direction and pattern is designed to minimize site degradation in skidding operations.

When a tree starts to fall, quickly move away to a safe distance. Never turn your back on a falling tree.

Watch for limbs, broken tops, etc., being thrown back as the tree falls.

If you intend to use a "pusher tree" to overcome a falling difficulty, select a sound tree - otherwise use a different method.

Fallers must watch for build-ups of ice and snow on the trees that could break off and fall on them when they start to cut or wedge the tree.

Adequate escape paths become crucial as it is difficult to move wearing snowshoes and there is usually only the one route away from the tree.

Dangerous Tree Falling:

- All main roads and active secondary roads will be inspected for dangerous trees.
- Any identified dangerous trees found will be felled.
- Any dangerous trees past what the buncher cannot reach will be hand felled.
- Dangerous trees on or outside the cut-block boundary will be felled in conjunction with the block and will not be utilized without written authorization.
- Fall oversize dangerous trees, as soon as the area is safe to fall in, a hand faller will go in and fall the dangerous trees.

Where conditions require the skidding of felled timber located within two tree lengths of the faller, the following procedure will apply:

- During winter logging it is imperative that the faller, skidder operator/chokerman work as a team, and as directed by the faller and/or Supervisor.
- Fallers must walk out to where they can see the chokerman/skidder operator and give the "all clear" signal.
- The faller shall present the signal only when it is safe for the skidding crew to enter. The signal shall be the slapping of the top of the hard hat with the palm of the hand.
- At no time shall fallers leave their trees cut up while the skidding crew is in the area picking up a turn.
- Fallers must not resume work until they have ensured that the chokerman/skidder operator is in the clear, at least two tree lengths away.
- Chainsaws shall not be running while the chokerman/skidder operator is picking up the turn.
- The chokerman/skidder operator shall be a safety watch and ensure that no one enters the falling areas while the faller is felling.
- At no time shall the chokerman/skidder operator be with the faller during the felling of the tree unless they are required to assist in overcoming a particular falling difficulty.
- When felling, it is imperative that at least two tree lengths of space be maintained between the faller and the chokerman/skidder operator.
- If the potential of sliding logs exists, this distance must be greater.
- No person may enter the felling area until the faller makes himself visible and presents the "all clear" signal.

7.2.3 Falling SAFE WORK PRACTICES

Keep caulks in good condition.

Inspect equipment routinely and make repairs as required.

When moving tools and chainsaws, do not attempt to carry more than you can safely handle.

Ensure a round nose shovel and a fire extinguisher are at the fuel site.

When limbing with an axe or chainsaw, stand with both legs on the opposite side of the log from the side you are limbing.

Avoid jumping on chunks - they may roll or twist.

Wear stagged pants to prevent tripping.

Watch for loose bark; this is a slipping hazard.

Watch for persons attempting to get your attention for permission to enter the falling area.

Should any hazardous condition be found to exist which is not covered in the falling and bucking procedure, consult your Supervisor immediately for assistance.

Fallers should attempt, if at all possible, to take coffee and lunch with one another, or with another member of the crew.

Fallers must be equipped with some means of a signaling device, with which emergency signals can be relayed.

Fallers will work tighter cooperatively with all workers on the crew.

Fallers will keep the rest of the crew aware of all safety, production, work layout and sensitive ground issues as they arise.

Faller may request others for assistance whenever required.

Personal Protective Equipment:

Hi Vis Hard Hat, blaze orange
Hi Vis Vest or Jacket
Hearing Protection
Gloves
Eye Protection (glasses or screen)
Leg Protection
Whistle and/or radio
Caulk Boots
Personal First Aid Kit and /or pressure dressing
Fire Extinguisher
Axe
Wedges (2)

Read: BC Falling Standards Part 1 & Part 2.

7.3 BUCKING SOP

7.3.1 PREPARING TO BUCK

No worker must be allowed to buck trees until he has demonstrated to his Employer that he is qualified to do so, in accordance with the WSBC Faller Bucker Training Program.

Fallers and Buckers procedures comply with Workers' Compensation Board Occupational Health and Safety Regulation Part 26; Sections 23, 24, 25, 26, 27, 28, 29 & 30.

Do not start to buck a log or tree if the log or tree is considered to be in dangerous circumstances, or if there is a reasonable probability that the cut cannot be completed.

Fuel and service equipment away from all water bodies and in designated areas only.

Know Emergency Spill Procedures.

7.3.2 COMMENCING TO BUCK

Review and follow management objectives in regards to diameters, length, quality and species.

Operate equipment to minimize fiber loss.

Observe all conditions of any special management areas.

Buck within approved areas only.

The bucker will maintain radio contact or visual contact with Supervisor and fellow workers at all times.

All logs on landing will be spread and limbed with a skidder prior to the bucker processing the wood.

Decked wood will be checked for defects and limbs.

Position slash according to Cutting Permit and Logging Plan Map.

Buckers must ensure that any obstruction to bucking is cleared and a safe escape route to a predetermined safe position is prepared.

Watch for pivot points and scissor log configurations when bucking.
When bucking a log or tree lying on the incline, stand on the upper side of the log.

Wait until the logs have been spread by the skidder or loader and they are all laying flat on the ground before commencing bucking.

Be certain you are not standing on the whip side when bucking.

If you are trimming logs on a loaded truck, be aware of the potential for a chainsaw kickback, and ensure that no one is standing near you.

Logs, which have been partially bucked, must be marked by cutting an X into each end and reported to the Supervisor.

Buckers are to control traffic on landings.

Keep landing clear of debris and vehicles.

Be sure all danger trees that are within striking distance of the landings are removed.

Keep clear of loaders and skidding machines at all times. Never turn your back to an approaching machine.

Do not start limbing or bucking until chokers are removed.
Make sure logs are in a secure position before unhooking the chokers.

Never walk under a log that is being held up by a loader.
Service and fuel saw in a designated area, well clear of traffic flow.

7.3.3 SAFE WORK PRACTICES

Keep caulks in good condition.

Inspect equipment routinely and make repairs as required.

When moving tools and saws, do not attempt to carry more than you can safely handle.

Ensure a round nose shovel and a fire extinguisher are at the fuel site.

When limbing with an axe or saw, stand with both legs on the opposite side of the log from the side you are limbing.

Avoid jumping on chunks - they may roll or twist.
Wear stagged pants to prevent tripping.

Watch for loose bark; this is a slipping hazard.

Watch for persons attempting to get your attention for permission to enter the bucking area.

Should any hazardous condition be found to exist which is not covered in the bucking procedure, consult your Supervisor immediately for assistance.

Buckers should attempt, if at all possible, to take coffee and lunch with one another, or with another member of the crew.

Buckers must be equipped with some means of a signaling device, with which emergency signals can be relayed.

7.4 MECHANIZED HARVESTING STANDARD OPERATING PROCEDURES

7.4.1 MECHANIZED HARVESTING STANDARDS

All mechanized equipment is to be fitted with the necessary operator protective screens as required by Occupational Health and Safety Regulations. **Refer to OHSR Part 16; Section 6.21**.

All mechanical equipment is to have manufacturer's operator manual in the machine for easy reference by the operator.

Damaged windows must be replaced as soon as possible.

The cab of every unit must be fitted with a secondary exit, which is not blocked by any part of the structure and does not exit into the engine compartment.

Repairs must be performed by qualified personnel.

All Slope limitations of the specific machine and other rated capacities must be observed.

Fire suppression system to be maintained and precautionary measures taken to keep high hazard areas clear of debris.

Contractor must ensure that the operators are aware of:

- Different falling specifications required in the Logging Plan Map and/or Silviculture Plan.
- Riparian areas, special management areas, wildlife trees and the prescriptions for these areas.
- Utilization standards.
- All safety, Occupational Health and Safety Regulation, fire prevention requirements and regulations.
- Walk and/or review work area with Supervisor before falling begins or on a new block.
- Sensitive sites, i.e.; wet areas, compaction.
- What the detrimental site degradation limit is.
- All paint and ribbon lines and their significance.

Do not fuel or service machine, or carry out avoidable repairs near streams, creeks, river, lakes, or wet lands.

When parked, a minimum clearance of three (3) feet shall be maintained behind the counterweight.

Ensure tracks are properly caulked for winter conditions.

7.4.2 GENERAL START UP

- All workers will wear required personal protective equipment.
- All accidents and near misses will be reported to the Supervisor.
- Ensure you have a Prework before start up.
- Participate in safety meetings.
- Know fueling and emergency spill procedures.
- Know who the First Aid Attendant is and where the first aid equipments is onsite.
- Check safety hatch is operational, from inside and outside weekly).
- Know the radio channel you are to operate on.
- Check for “DO Not Operate” tag.
- Check Log Book entries.
- Inspect machine to ensure it is in safe operating condition.
- Always use 3-point contact when mounting or dismount machine.
- Ensure good housekeeping is maintained.
- Ensure other personnel are clear of machine before moving.
- Ensure hydraulic lock is in working condition.
- Put all waste in appropriate containers.
- Check area when stopping and getting out of machine for overhead and other hazards.
- Man check systems must be established as needed and effectively utilize.
- Supervisors are responsible to ensure all workers are accounted for at the end of the shift.
- Always start engine sitting in operator’s seat.

7.4.3 OPERATIONAL PROCEDURES

- Always stay in operator's seat when operating.
- Ensure seatbelts are worn all times.
- Ensure that you are aware of onsite hazards and know the procedures for working near them.
- Maintain a two-tree length distance from other operators and equipment unless a plan is in place. If for any reason an operator has to leave his unit it must be parked a minimum of two tree lengths from any operational area.
- Work to the capability of yourself and your unit, if you feel Unsafe **STOP** and make a plan with your Supervisor.
- Operate at safe speeds.
- If at anytime the machine becomes unstable – shut it down and get help.
- When parked, a minimum clearance of three feet shall be maintained behind the counterweight.
- Before leaving the unit, the unit must be immobilized and any elevated parts lowered to the ground.
- Follow lockout and or de-energization procedures when conducting repairs or maintenance.
- Put "Do Not Operate" tag on key if machine is unsafe, inoperable or being repaired.
- Keep doors closed so that guarding is effective.
- At the end of the shift the operator will complete a visual inspection and notify the Supervisor of any imminent problems. If there are mechanical problems found at any time during the shift the Supervisor should be made aware of these as soon as possible to schedule mechanics and repairs. All entries must be noted in the logbook.
- Use fall protection when working more than 10 feet off the ground.
- Make sure machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine.
- If operator leaves early he must notify the Supervisor.
- Do not walk on unstable logs or log decks.
- Do not use neutral when going downhill.
- No riders are allowed on the machine, except an authorized trainee or maintenance person.
- Do not keep loose articles in the cab.
- Operator will be responsible to service all grease points on the machine once every shift. If there are grease nipples that have failed they will be replaced by the operator. If the grease point does not take grease properly after replacing the nipple, the operator must notify the on site Supervisor immediately, so that the problem can be fixed as soon as possible.
- Clean tracks out at the end of shift.

- Stop work immediately if rutting, sloughing, or erosion is occurring.
- Do not operate within five (5) metres of a wetland, lake, river, stream or creek, unless otherwise stated in the Logging Plan.
- Do not spin tracks or wheels, or cause other ground disturbance.
- Do not fuel or service machine, or carry out avoidable repairs, near streams, creeks, rivers, lakes or wetlands.
- The machine shall be fueled by the operator as required. If the machine is in close proximity to fuel source during the shift it is a good practice to fill at this time to reduce traveling the machine at the end of the shift.

7.4.4 SERVICING MACHINERY

- Ensure you remove all hazards:
  - Shut off hydraulic pressure by engaging the lock out switch in the cab.
  - Remove residual pressure by operating each lever and switch with the engine shut off but the master switch on.
- Always place machine head firmly on the ground before servicing.
- Never stand in direct path of saws and/or other moving parts.
- Never directly face a faulty hydraulic component as it could lead to serious burn injuries.
- Never work between feed rollers and/or other moving parts that could lead to crushing injuries.
- Never stand directly under the boom unless it is on the ground and/or supported.
- Never stand in front of the boom unless it is chained securely to the machine.
- Always wear a fall restraint harness when working on top of machinery.

7.4.5 EQUIPMENT ON MUSKEG AND ICE BRIDGES

On oil and gas winter projects, equipment operators will be exposed to the hazards related to partially frozen or un-frozen muskeg as well as frozen ice bridges across streams and rivers. Extra care must be taken when operating near or on top of frozen muskeg and ice as the heavy machine may break through the frozen surface. Should your machine break through the ice/muskeg, ensure that you open your cab door immediately so that you do not become entrapped in the machine should it begin to sink right through. If possible, radio for assistance and then leave the machine for solid ground.

Frost Lake Logging Ltd. processor in its' icy grave – Red Earth Creek, Alberta – December 31, 2006

7.4.6 MECHANIZED FALLING SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact and potential hazards	1. Contractor must ensure that the operators are aware of: ➢ Walk and/or review marked area with Supervisor before falling begins or on a new block ➢ Different falling specifications required in the Logging Plan ➢ Riparian areas, special management areas, wildlife tree and the prescription for these areas ➢ Utilization standards ➢ Sensitive sites, i.e.; wet areas, compaction ➢ What the detrimental site degradation limit is ➢ All paint and ribbon lines and their significance
2. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ For faulty equipment ➢ Leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	1. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes ➢ Hydraulic System - hoses, oil levels, leaks ➢ Air Systems -drains separator, dust bowl ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant
3. Equipment Startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 1. Always use three point contact when entering, leaving and inspecting equipment. 2. The operator must: ➢ Before leaving unit, lower elevated parts to the ground, disengage hydraulic system. **Refer to OHSR Part16; Section 16.36**
4. Falling Process - Safety	1. Steep slope, ground conditions, positioning of bunches, proximity to others, high stumps	1. The operator must: ➢ Discuss plan with your Supervisor before starting steep area ➢ Know the limitations of you and your unit, if you fell unsafe or unsure STOP and notify your Supervisor. 2. When working on a steep slope incline, do not work around the slope. Rather work uphill and deadhead downhill 3. When working on a slope avoid extending the boom out near its limits and swinging with a tree in the head

7.4.6 MECHANIZED FALLING SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Falling Process – Safety (cont)	1. Steep slope, ground conditions, positioning of bunches, proximity to others, high stumps (cont)	4. Cut trees as close to the ground as possible. Avoid high stumps and loose debris that could cause machine to come unstable. 5. Make smooth gradual movements with the unit. Quick moves may cause tops to break off and fall onto the cab or hang up in other trees 6. Be aware of rock areas, frozen ground, side cuts, ditches and unstable areas near roads and operate carefully.
	2. Working in proximately to other workers or equipment	1. When working in proximity to others: ➢ Persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ When working adjacent to traveled areas there must be a positive means of traffic control ➢ Operators must ensure that all workers are clear of the hazardous area before a tree is felled ➢ Workers must observe the two-tree length rule as required by hand fallers
	3. Uncontrolled falling, tops	1. Dangerous Tree Falling: ➢ Dangerous trees are to be felled progressively ➢ Any dangerous trees past what the buncher cannot reach will be hand felled ➢ The feller buncher at the time of falling right-of-way, will fall all the dangerous trees that can reach from the right-of-way boundary and the material will be utilized ➢ Dangerous trees on or outside the cut block boundary will be felled in conjunction with the block and will not be utilized without written authorization ➢ Where oversize dangerous trees are encountered in a feller buncher operation, if double cutting is allowed the tree must be felled immediately ➢ The buncher operator will make certain that the first pass drags are not situated so as to rub up against or pivot around the dangerous trees
	4. Power line contact	1. Before falling in proximity of power lines, contact BC Hydro to ensure all safety precautions are taken.
5. Maintenance/saw service	Injury to worker, struck by, cuts to hand	1. Shut saw off before getting out of machine 2. Ensure all elevated parts are lowered to ground 3. Shut down computer, electric and hydraulics 4. Tag out master key 5. Release hydraulic pressure when working on machine (top of tank on Madill) 6. Wear gloves when changing teeth 7. Beware of pinch points for hand when changing teeth. 8. Inspect saw for cracking on a regular basis

7.4.6 MECHANIZED FALLING SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
6. Falling Process Environmental	1. Damage to soil, drainage and other	1. Work near cutblock boundaries and riparian areas environmental impact only during daylight hours. 2. Must stop work if encountering a boundary or ribbon line not covered in a briefing by the Logging Supervisor. 3. Must stop work immediately if you cannot find ribbons or locate yourself on the map. 4. Ensure falling direction and pattern is designed to minimize site degradation in skidding operations. 5. Trees are to be felled away from wetlands, creeks, rivers, draws, lakes, special management areas, and wildlife areas. 6. Lay trees to avoid skidding across wet ground, "frog holes" or swales. 7. Trees are not to be felled outside of boundaries unless specifically authorized in writing.

7.4.7 SKIDDING (Line/Grapple/Crawler) SAFE WORK PROCEDURE

Personal Protective Equipment: 1. High Visibility Safety Headgear 2. Hearing Protection (as required) 3. Gloves (as required) 4. Safety Footwear 5. Eye Protection (as required) 6. High Visibility Apparel 7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact General safety issues and hazards	1. Contractor must ensure that: ➢ Operations are conducted in accordance with Occupational Health and Safety Regulation and Forest and Range Practices Act. ➢ operators are aware of which way timber must be skidded ➢ operators are aware of different equipment specifications for each treatment unit within the block ➢ Operators are aware of what detrimental site degradation is (rutting, sloughing, erosion). The skidder operator must be aware of the site degradation limits ➢ operators are aware of utilization standards ➢ Logging Plan Map is reviewed in relation to natural features, sensitive areas and terrain to ensure feasibility of approved skid direction ➢ the operator reviews and complies with all requirements of Riparian Management Area as identified in the Silviculture Prescription or Logging Plan Map ➢ operators are aware of all paint and ribbon lines and their significance ➢ operators monitor progress on regular basis with respect to soil and weather conditions and shut down as required ➢ operator does an on site review and walk locations as required to ensure familiarity with job requirements ➢ operator signs pre-work sheet acknowledging discussion and understanding ➢ operator reviews and follows management objectives in regards to leave tree (species, size, distribution) ➢ operator avoids damaging leave trees and operates the equipment to minimize fiber loss
2. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ For faulty equipment ➢ Leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	1. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, spill kit, fire extinguisher, first aid kit, lights, brakes, mainline and chokers ➢ Hydraulic System - hoses, oil levels, leaks ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant ➢ Visual check for leaks, cracks, undercarriage irregularities, etc., prior to starting unit

7.4.7 SKIDDING (Line/Grapple/Crawler) SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 1. Always use three point contact when entering, leaving and inspecting equipment.
4. Skidding Process - Safety	1. Steep slope, ground conditions, high stumps - rollover	1. The operator must: ➢ When working on a steep slope incline, do not work around the slope. **Refer to Steep Slope Procedure Pg. 37.** ➢ Travel at a safe speed ➢ When winching align the machine with the direction of pull ➢ Make sure all verbal and WSBC approved hand signals are used and understood before moving machine or lines **See OHSR Part 26; Section 26.34.** ➢ Do not enter an active falling area, stay a minimum of two tree lengths away unless the faller has signaled okay to enter and has stopped falling. This same rule applies to Mechanical Falling ➢ When operating with tire chains, watch for stick and branches that may get caught and flipped into the cab or towards others ➢ Try to align machine straight with bundles or slightly turned to leaver side when picking up bundles ➢ Make sure chains are in good condition and tight ➢ If you fell unsafe or unsure at any time STOP and notify your Supervisor ➢ Do brake check before going up hill
	1. Log control or decking - Other workers, rollovers	1. When skidding: ➢ Flatten any logs or sticks sticking out at an angle (jill pokes) that happen as you are skidding an area ➢ When pushing or grapple lifting up into a deck stay at right angles, be aware the deck is unstable and may fall apart ➢ Watch the location of ditch when putting a drag in to the pile (tires may fall in and cause the machine to roll) ➢ Be aware of unstable cuts and banks ➢ When driving off a deck do no let go of drag until front wheels are on the ground ➢ When pushing up into a deck make sure logs do not roll over or slide out onto another work area or road

7.4.7 SKIDDING (Line/Grapple/Crawler) SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Skidding Process Safety (cont'd)	2. Proximity to others, jill-pokes	1. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ skidders working in conjunction with processors must have an established system of communication and procedure for working in the same area ➢ when entering a landing make sure buckers and loaders are in the clear ➢ before leaving unit, all elevated parts must be lowered to ground, parking brake set and transmission placed in neutral
4. Skidding Process - Safety (cont'd)	3. Where conditions require the skidding of felled timber located within two tree lengths of the falling process	1. Working safely within two tree lengths: ➢ during winter logging it is imperative that the faller (buncher), skidder operator/chokerman work as a team, and as directed by the faller and/or Supervisor ➢ fallers must walk out to where they can see the skidder operator/chokerman and give the all clear signal ➢ The faller shall present the signal only when it is safe for the skidding crew to enter. The signal shall be the slapping of the top of the hardhat with the palm of the hand. This can be accomplished by the buncher by giving the all clear over the radio ➢ at no time shall fallers (bunchers) leave their trees cut up while skidding crew is in the area picking up a turn ➢ falling process shall not resume until it has been determined that the skidding crew is in the clear at least two tree lengths away ➢ chainsaw shall not be running while the skidding crew is picking up the turn ➢ skidding crew must maintain the two tree length distance while falling is in progress ➢ the skidding crew shall be a safety watch and ensure that no one enters the falling areas while the falling is in progress ➢ at no time shall the skidder operator be with the faller during the felling of the tree unless they are required to assist in overcoming a particular falling difficulty

7.4.7 SKIDDING (Line/Grapple/Crawler) SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Skidding Process - Safety (cont'd)	4. Hidden Hazards, Slippery (frozen) conditions also increase the hazard of trees and logs "running away" after being felled or decked. Trees frequently get totally or partially buried in snow, making it difficult to see when a tree is bound up or "loaded".	4. Hidden Hazards ➢ the skidder operator will pull all drags clear of dangerous trees before turning ➢ watch whip action of logs being skidded ➢ skidding a tree from the snow may also move another unseen buried tree, so ensure all workers are clear of the turn ➢ ensure wood felled or pushed into decks do not escape into other work areas ➢ when using the blade to de-limb a deck of logs ensure there are no workers exposed to the process ➢ In roadside logging, grapple skidders are often required to pull their drags up onto the deck and then walk the unit straight ahead and down off the deck. Care must be taken not to release the grapple until the front tires are firmly on the ground, otherwise the movement of the logs may cause the skidder to flip. Keep the unit heading straight; turning the skidder during the maneuver may also cause a rollover ➢ If you use your unit to push over a dangerous tree, back the unit up to the dangerous tree and push with the fairlead. This allows a higher point of contact and better control than pushing with the blade ➢ do not work in areas where there is a danger of pushing trees, rocks and other debris into an active work area
4. Skidding Process Safety (cont)	5. Skidding Right-of-Way	5. Right-of-way procedure ➢ Do not enter an active falling area; stay a minimum of two tree lengths away. ➢ When pushing a tree over, remove the tension out of the trees by using the blade or winch so that they may be bucked without danger of tree springing back. ➢ Do not create a hazard for worker who must follow.
5. Skidding Process - Environmental	1. Damage to soil, drainage and other environmental impact	1. No skid road to be constructed without the following being completed: ➢ Location must be inspected by Contractor Supervisor and Company Supervisor prior to construction. ➢ Must be ribboned prior to construction. ➢ Must be authorized by the Ministry of Forests in writing. 2. Other Environmental procedures: ➢ Bladed trails must maintain surface drainage patterns and minimize runoff and soil erosion until trail is either rehabilitated or deactivated. ➢ must not side-cast material where there is a high chance of landslide ➢ skid road width must be minimized but wide enough for safe skidding ➢ the Ministry of Forests must authorize temporary stream crossings ➢ crossings must be constructed so as to minimize disturbances ➢ crossings will be removed and rehabilitated as per Silviculture Plan and Logging Plan Map

7.4.7 SKIDDING (Line/Grapple/Crawler) SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
5. Skidding Process - Environmental (cont'd)		➢ slope trails toward the inside bank, never outwards ➢ skidding shall be done in a manner that minimizes damage to roads, culverts and ditches ➢ do Not spin wheels or tracks or cause other ground disturbance while skidding in block, piling logs at roadside or landings or when constructing Skid Bridges ➢ do Not construct bladed Skid Road or remove stumps without authorization of Company Foreman ➢ do Not alter location of streams of water courses ➢ do Not skid across stream, river, creek, wetland, "frog holes", or swales ➢ crossing wet areas, sensitive areas and creeks at approved designated crossing only ➢ ensure no logging debris or sedimentation enters a stream or water course ➢ minimize damage to standing timer and tree that must be left standing as per operational requirements report ➢ wherever possible, travel only on the mat of limbs and tops left by the harvester ➢ shall conduct and record a 100 step site degradation survey when required by Supervisor

7.4.7.1 SKIDDING - Chokerman SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Toed Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact General safety issues	1. Contractor must ensure that: ➢ operations are conducted in accordance with Occupational Health and Safety Regulation and Forest and Range Practices Act ➢ worker is aware of what detrimental site degradation is (rutting, sloughing, erosion) ➢ logging Plan Map is reviewed in relation to natural features, sensitive areas and terrain to ensure feasibility of approved skid direction ➢ workers are aware of all paint and ribbon lines and their significance
2. Skidding Process	1. Working with equipment, hidden hazards, general safety issues	➢ Do not enter an active falling area, stay a minimum of two tree lengths away unless the faller has signaled okay to enter area and has stopped falling. Use Occupational Health and Safety Regulation approved hand signals for communication with skidding crew **Refer to OHSR Part 26; Section 26.34** ➢ stay in the clear within the operator's line of vision when possible, above the machine and always out of the bight of lines being winched ➢ watch out for dangerous trees and trees with damaged roots that may fall without warning ➢ do not ride on machines ➢ do Not walk on balancing or unstable logs ➢ watch for and report jaggers on cables ➢ watch for and advise the machine operator of any hazardous conditions ➢ operator signs pre-work sheet acknowledging discussion and understanding ➢ when working on a slope, set chokers from the uphill side of the log whenever possible

7.4.8 MECHANIZED LIMBING & BUCKING SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact, ERP	1. Contractor must ensure that the operators are aware of: ➢ the licensee's log quality and utilization standards ➢ sensitive sites, i.e.; wet areas, compaction ➢ procedures for accessing first aid ➢ fueling procedures and spill response
2. Equipment Inspection, prepare for startup	1. Check unit's status: □ for faulty equipment □ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	**See SOP 6.4.4 – 6.4.3** 1. Operator must ensure the following checks are performed: ➢ Hydraulic System - hoses, oil levels, leaks ➢ Air Systems -drains separator, dust bowl ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes, cutting heads, cables
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	**See SOP 6.4.4 – 6.4.3** 1. Ensure no workers in equipment operating area. 2. Always use three-point contact when entering, leaving and inspecting equipment.
4. Processing **- Safety**	1. Ground conditions, positioning of logs	1. The operator must: ➢ ensure the unit is working on a stable work area ➢ logs are not being decked in such a manner that they may slide into other work areas ➢ where conditions allow, do not work on the haul roads, rather in the area between the road and slash ➢ the machine must be positioned with sufficient clearance from standing timber to prevent the boom and tree being processed from striking, pushing or pulling over any standing tree ➢ Make smooth gradual movements with the unit. Quick moves may cause tops to break off and fall onto the cab or hang up in other trees

7.4.8 MECHANIZED LIMBING & BUCKING SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Processing - Safety (cont)	2. Working close to other equipment and workers on the ground 3. Leaving Unit	2. When working in proximity to others: ➢ use a communication system in the form of adequate hand signals or two-way radio communication to enable people/equipment to approach or pass the processor ➢ stop operation and lower boom to the ground when other equipment is passing ➢ never pass boom or logs over workers ➢ when working adjacent to traveled areas there must be a positive means of traffic control 3. The operator must: ➢ before leaving unit, lower the boom to the ground, disengage hydraulic system **Refer to OHSR Part 16; Section 16.36**
5. Processing - Quality control	1. Working outside of unit while measuring log lengths and top sizes by hand and recording findings	1. All processors must have a copy of current log quality specs and be aware of mill destinations and sorting procedures 2. The operator must: ➢ lay out check logs on a clear flat area ➢ if on night shift advise man check contact that you are leaving your unit and when you will check back in ➢ lower all elevated parts and ensure unit is de-energized ➢ do not walk on balancing or unstable logs or log decks ➢ ensure all appropriate PPE is on ➢ if checking logs on decks ensure worker has adequate non-slip footwear or caulks
6. Saw Change/Maintenance	1. Injury to worker, cuts	1. When making or replacing saw chains make sure; ➢ hydraulic lockout is on ➢ computer is shut down ➢ machine is shut off ➢ elevated parts are lowered to ground ➢ wear gloves 2. When working on boom or saw head, head should be on ground, stable log or chained to prevent creeping. 3. When releasing pressure off a grease or hydraulic cylinder never stand in direct line of fitting or nipple and loosen slowly. 4. Inspect saws and chains for damage on a regular basis

7.4.8 MECHANIZED LIMBING & BUCKING SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
7. Processing - Environmental	1. Damage to soil, drainage and other environmental impact	1. Processed wood will not be decked in ditches, near culverts and/or in riparian areas. 2. Processor operators will adhere to licensee's log quality standards. 3. Do Not deposit processed logs within Riparian Management Area, Machine Free Zones, or across any marked boundary. 4. Ensure water flow in ditches, culverts and streams remain unrestricted. 5. Process logs in such manner as to not damage or impact boundary or leave trees. 6. Fuel or service equipment outside of Riparian Management Areas, unless it is necessary to move broken down equipment. 7. Inspect equipment, hoses, etc., for wear and tear that may cause spill, leaks or ground disturbance. Inspections shall occur at least twice per shift. 8. Report promptly to the Logging Supervisor adverse environmental impacts whether actual or potential impact may exist.

7.5 LOADING OPERATIONS

7.5.1 LOADING STANDARD OPERATING PROCEDURES

Refer to applicable road user and transportation procedures.

Operators are directly responsible for the safe operation of their units at all times. **Refer to OHSR Part 16; Sections 16.3 and 16.5.**

Contractor must comply with the standards in **OHSR Part 16; Sections 16.2 and 16.48 (guarding of loader, broken windows, railing, etc.).**

All operators must wear high visibility hardhats and vests when out of their units.

All equipment operators must wear seatbelts while moving.

Operators shall ensure that all workers are safely in the clear before initiating or continuing the motion of any mobile equipment.

Although operators are responsible, it is also the responsibility of buckers and other workers to stay clear of any area considered to be hazardous due to the movement of such equipment.

Landing workers in charge of traffic control shall be thoroughly instructed in this procedure.

7.5.2 MAINTENANCE

The operator must complete a quick visual check for leaks, cracks, undercarriage irregularities, etc., prior to starting machine.

The operator must check the fluid levels prior to starting the machine.

Fuel and service equipment away from all water bodies and in designated areas only.

Know Emergency Spill Procedures. **Refer to EMS/ISO Binder**

The operator will be responsible to service all grease points on the machine once every shift. If there are grease nipples that have failed they will be replaced by the operator. If the grease point does not take grease properly after replacing the nipple, the operator must notify the on site Supervisor immediately, so that the problem can be fixed as soon as possible.

The machine will be fueled by the operator as required. If the machine is in close proximity to fuel source during the shift, it is a good practice to fill at this time to reduce traveling the machine at the end of the shift.

At the end of the shift the operator will complete a visual inspection and notify the Supervisor of any imminent problems. If there are mechanical problems found at any time during the shift the Supervisor should be made aware of these as soon as possible in order to schedule mechanics and repairs.

7.5.3 PREPARING TO LOAD

Logs should be decked to facilitate loading:

- keep all butts or ends even
- turn logs that should be loaded butt ahead
- position log decks to eliminate extra maneuvering when loading
- have all logs bucked, limbed and stamped when required

All truck drivers must be in view, in the clear, or their whereabouts known before the equipment or logs are moved. Truck drivers must wear high visibility hardhats and vests at all times when within the boundaries of the logging area.

Always use proper signals when directing truck movements. Audible signals must be given before moving mobile equipment:

- one blast of horn to stop
- two blasts of horn to back up
- three blasts of horn to move ahead

Providing that the loader can easily handle the trailer, the lifting- strap should be properly positioned on the trailer. Lift the trailer off with caution and ensure that the trailer lifting-strap has not deteriorated.

If the drivers are hooking up the reach themselves, this method can still be used by the loader operator lowering the boom, which causes the trailer to move ahead slightly so it can be coupled.

With some trucks, the compensator can also be moved to facilitate hook up.

If the truck is to be backed into the reach and coupled without help, the trailer lifting-strap can be repositioned slightly to permit the reach end to lift off the ground before the trailer wheels are lifted.

The person hooking up the trailer should always stand off to the side to enable the operator to see the reach end and hitch.

The truck must be always positioned properly for loading before hooking up the trailer.

If the deck is beside the truck, logs shall not be picked up from it until the driver and/or other workers have finished their duties, retired to a safe location, and the driver is in the cab of the truck.

7.5.4 LOADING

To ensure stakes remain at a safe angle, logs shall be laid tight to minimize slack in the stake cable.

Logs shall be well positioned in their lay, without crowding, to avoid excessive strain on the stake-line and stakes.

Bunk and face logs must extend beyond bunks. Place short logs in the centre of the load.

Bunk and stake logs shall extend not less than 30 cm beyond the bunks or stakes.

Logs shall be loaded clear of the bulkhead to avoid being bunk-bound on corners.

When loading small diameter logs, two tiers should be used as bunk and stake logs before loading short logs into the load.

Never place split, cracked or shattered logs on the bunk or against the stakes.

Not more than one-third of the weight of the logs shall extend beyond the trailer bunk, or beyond the ends of the logs supporting them.

Logs shall be loaded to ensure the stability of the vehicle and load when in transit.

Care should be taken to properly balance the load, especially on off-highway trucks. A side heavy load, or a load with too much weight on the trailer, could cause a truck to tip over or spin out under wet or icy conditions.

Workers are not permitted to stand on the cab platforms of trucks when loading by conventional methods. If this occurs, the loader operator shall cease loading until the worker is removed.
See OHSR Part 26; Section 26.74.

A distinctive signal to indicate load is finished should be used. Using a radio instead of audible signal is acceptable; always receive confirmation of any communication.

7.5.5 LOADER - GRAPPLE SAFE WORK PROCEDURE

Personal Protective Equipment: 1. High Visibility Safety Headgear 2. Hearing Protection (as required) 3. Gloves (as required) 4. Safety Footwear 5. Eye Protection (as required) 6. High Visibility Apparel 7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact and hazards	1. Contractor must ensure that the operators: ➢ review permit requirements, ribboning convention, with emphasis on any special clauses ➢ sign check-off sheet acknowledging discussion and understanding ➢ have and review map identifying sensitive areas and observe all conditions of any Special management Areas ➢ deck logs away from water bodies, power lines and pipelines ➢ utilization standards ➢ load within approved area only ➢ position slash according to Cutting Permit and Logging Plan Map
2. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	1. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes ➢ Hydraulic System - hoses, oil levels, leaks ➢ Air Systems -drains separator, dust bowl ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant
4. Loading Process **- Safety**	1. Handling, decking logs 2. Working with truckers 3. Loading trucks	1. The operator must: ➢ Wear seatbelt when operating the machine. ➢ ensure buckers and truck drivers are in the clear before moving ➢ use WSBC approved hand signals or other appropriate means for communication ➢ never allow anyone to ride in or on the unit, it is not designed for carrying passengers 2. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ operators must ensure that all workers are clear of the hazardous area before loading

7.5.5 LOADER - GRAPPLE SAFE WORK PROCEDURE

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
4. Loading Process - Safety (cont)	1. Handling, decking logs 2. Working with truckers 3. Loading trucks	3. Loading: ➢ When loading, equipment should travel at moderate speeds where control can be maintained ➢ Never try to lift or carry a load that is too heavy for that particular unit ➢ Ensure that there is a sufficient work area on the landing or roadside for all activities ➢ Keep clear of any spread of logs that the bucker is still working on. The chance of bumping a log and causing injury is too great ➢ Properly position logs in the grapple before raising them clear of the ground ➢ Do Not swing logs over workers ➢ When approaching a truck with a grapple full of logs, avoid traveling with the grapple at full height. Keep the grapple low until near the truck, and then raise the grapple. This will ensure better control of the loader at all times ➢ All loads must be restrained by grapples when binders and cinches are being placed on the loaded truck **Refer to OHSR Part 26; Section 26.68** ➢ Before leaving unit, lower the grapple to the ground, set the parking brake and put the transmission in neutral **Refer to OHSR Part 16; Section 16.36**
5. Loading Process - Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ Monitor progress on a regular basis with respect to soil and weather conditions and shut down as required ➢ Cease operations in the immediate vicinity and report to Supervisor when you come upon an unidentified site or resource feature ➢ Conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ Inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift ➢ Not deck wood outside designated landing or roadside areas; no decking outside of block ➢ Clean out ditches concurrent with load-out. ➢ Contain all waste daily and remove from the work site regularly

7.5.6 LOADER – BUTT-N-TOP/HEEL BOOM SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact and safety hazards	1. Contractor must ensure that the operators: ➢ have and review map identifying sensitive areas and observe all conditions of any Special management Areas ➢ sign check-off sheet acknowledging discussion and understanding ➢ deck logs away from water bodies, power lines and pipelines ➢ review permit requirements, ribboning convention, with emphasis on any pecial clauses ➢ utilization standards ➢ load within approved area only ➢ position slash according to Cutting Permit and Logging Plan Map
2. Equipment Inspection, prepare for startup	1. Check unit's status: □ for faulty equipment □ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	**See SOP Sections 6.4 & 6.5** 1. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes ➢ Hydraulic System - hoses, oil levels, leaks ➢ Air Systems -drains separator, dust bowl ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant 2. Check and maintain the lines, blocks, hoses, etc. daily.
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	**See SOP Sections 6.4 & 6.5** 1. Ensure no workers in equipment operating area. 2. Check counterweight clearance before operating loader. 3. Do not allow anyone into the articulating area of the machine unless it is shut off. 4. Always use three-point contact when entering, leaving and inspecting equipment. 5. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine.

7.5.6 LOADER – BUTT-N-TOP/HEEL BOOM SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Loading Process - Safety	1. Handling, decking logs	1. The operator must: ➢ ensure buckers and truck drivers are in the clear before moving ➢ use WSBC approved hand signals or other appropriate means for communication ➢ never allow anyone to ride in or on the unit, it is not designed for carrying passengers
	2. Working with truckers and other workers	2. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ operators must ensure that all workers are clear of the hazardous area before loading
	3. Loading trucks	3. Loading: **Refer to Sections 6.5 - Loaders, 6.5.1 – Maintenance, 6.5.2 - Preparing to Load, 6.5.3 - Loading** ➢ check counterweight clearance before operating swing-type loaders (minimum 3 feet) ➢ never try to lift or carry a load that is too heavy for that particular unit ➢ avoid positioning the unit too close to the truck being loaded as it restricts the movement of the loader ➢ ensure the loader is positioned on relatively flat ground before picking up logs ➢ ensure that there is sufficient work area on the landing or roadside for all activities ➢ keep clear of any spread of logs that the bucker is still working on. The chance of bumping a log and causing injury is too great ➢ do Not swing logs over workers ➢ when picking logs up with boom fully extended, keep the load low until brought in towards unit; this will maintain stability ➢ all loads must be restrained when binders and cinches are being placed on the loaded truck **Refer to OHSR Part 26; Section 26.68** ➢ before leaving unit, lower the boom to the ground, disengage hydraulic system **Refer to OHSR Part 16; Section 16.36**

7.5.6 LOADER – BUTT-N-TOP/HEEL BOOM SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
5. Piling	Rollovers, jill pokes	1. Make sure slash is stable before starting to work on it ➢ Pack with head or rake ➢ Move tracks back and forth with head or rake in low position ➢ Test stability before starting to pile 2. Remove possible hazards as they occur ➢ Jill pokes ➢ Falling debris 3. Build piles so they will not collapse on machine 4. Keep debris off machine 5. Keep a fire watch on recently worked areas during hot season 6. Know and have escape routes 7. Work areas in a way that ensures access and escape routes, stay clear for you and the machine.
6. Loading Process-Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ monitor progress on a regular basis with respect to soil and weather conditions and shut down as required ➢ cease operations in the immediate vicinity and report to Supervisor when you come upon an unidentified site or resource feature ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift ➢ not deck wood outside designated landing or roadside areas; no decking outside of block ➢ clean out ditches concurrent with load-out contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.6 LOG HAULING, LOWBEDDING & HIAB OPERATIONS SOP

7.6.1 GENERAL REQUIREMENTS

Refer to applicable Road User and Log Transportation Safety Procedures, and Frost Lake Logging Ltd. Trucker EH&S Handbook.

- Log truck drivers must sign off a copy of the current Log Transportation Safety Procedure manual before receiving a load of logs.
- Drivers must possess a valid and correct type driver's license as required by the Province of British Columbia including air endorsement certification and provide a driver's abstract to Frost Lake Logging Ltd. as proof.
- Trucks shall have a truck number posted on the driver's side that is easily visible for the scale operators. This number must be approved prior to hauling.
- All Logging Trucks delivering to licensee Scale Sites must have Vehicle Identification Numbers (VIN) posted on the front of their vehicle. See VIN policy in this book.
- Operators must do regular daily pre inspection checks to ensure that log transport trucks are maintained, equipped and operated the requirements of the *WSBC Regulation, the Motor Vehicle Act and Regulations including Division 37 – National Safety Code Regulations*. Drivers must be prepared to show this pre trip inspection to inspectors.
- All trucks must meet the Commercial Transport regulations pertaining to the hauling of logs, haul road use, weights and sizes. A copy of the *Commercial Vehicle Inspections Program Certificate* must be provided, if requested.
- Operators are to have updated/current log books at all times, if applicable.
- Logging trucks must be equipped and maintained to meet Occupational Health and Safety Regulation. **Refer to OHSR Part 26; Sections 26.65, 26.66, 26.72 and 26.73**.
- Log haul trucks and low beds must comply with the EMS requirements for the Company (e.g.: Spill Kits, Work Instructions, etc.)
- All truck drivers and low-beds must have a copy of the latest Emergency Preparedness Plan (ERP) in their truck, and be prepared to discuss the contents.
- Drivers are responsible for all permits (restricted routes, long load, highway crossings, operating authority permits, etc.)
- Hi-visibility hard hats, hi-visibility vest and proper footwear must be worn at all times when the driver is out of the cab.
- Trucks must be equipped with first aid equipment, fire extinguisher, roadside flares, load flags, long load light for hauling after dark, shovel, axe, pulaski and sufficient binders and cinches to secure the load.
- Safety chains shall be in place on trailer reaches when towing a trailer.

- Stake cables and lifting straps shall be kept in good condition and replaced as required.
- Ensure log trucks and trailers meet all regulations and standards
- In accordance **with OHSR Section 26.79 to 26.83 (inclusive),** no hauling should take place if to do so would create an undue hazard to the truck driver's health and safety.
- If an unsafe condition exists the truck driver must report the circumstances to a supervisor immediately.
- Where a motor vehicle is involved in an accident on a Forest Road, the driver or person in charge of the vehicle shall report the accident to the office. Pine View Trucking Ltd will contact other agencies as applicable. In case of a serious injury or FATAL ACCIDENT, WCB and RCMP are to be contacted IMMEDIATELY.
- Sections of the Motor Vehicle Act and all other acts normally in effect still apply to these roads; i.e.: speeding, overloads.
- Logging trucks must be equipped and maintained to meet Occupational Health and Safety Regulations. **Refer to OHSR Part 26; Sections 26.65, 26.66, 26.72 and 26.73**.
- Know Emergency Spill Procedures.
- Radio transmissions are for business only. Idle chatter is not acceptable. Inform the individual that idle chatter should be conducted on a low priority channel and that it is interfering with road safety.
- Radio channels are posted at the start of each road. No other channels are to be used on the Forest Road System.
- Generally, only the loaded vehicles call their mileage. Exceptions are: graders, sand trucks, wide loads, fuel trucks, Empties call when changing channels, entering new roads or at designated signs.

7.6.2 SAFE DRIVING

- Seat belts must be worn when vehicle is in motion.
- Drive according to road conditions. **Do Not** rely on the radio.
- All road signs are to be obeyed. The Motor Vehicle Act applies to logging roads as well.
- All vehicles shall operate on the right side of the road
- **Do Not** call both ways every time you meet a vehicle, unless that vehicle doesn't have a radio, or you deem it necessary.
- Call as per procedures, regardless of time of day or amount of traffic.
- When overtaking any vehicle, identify location, intentions and confirm clearance before passing.

- Use extreme caution when meeting approaching vehicles.
- Clearing for oncoming traffic shall be done on the right hand side of the road, except in designated areas.
- When stopping for any reason, identify your location and intentions. In case of breakdowns, flares or reflectors must be used.
- When stopping, leaving, or entering a haul road, advise road name and direction.
- In transit stop to check load and tighten wrappers as conditions require.
- Travel at safe speed limits dictated by road conditions.
- It is the responsibility of the truck driver to regulate their activities with regard to unsafe road or weather conditions (ice, snow, speed, mud, visibility).
- Be aware of log swing at the front and rear of the trailer when meeting approaching traffic and when driving in city traffic.
- Trucks both empty and loaded must slow to a safe speed when passing stopped vehicles, road graders and road maintenance activities.
- No unauthorized person should ride in the driver's compartment.
- During the winter, trucks must carry tire chains.
- Chains should be used at the driver's discretion when roads are slippery.
- No loose articles are to be carried in the cab of the truck. All items in the operator's compartment should be secured.
- All binders shall be adjusted as required, in transit, to ensure the load is secure.
- Be aware of log swing at the front and rear of the trailer when meeting oncoming traffic, turning corners and when driving in town traffic.
- Check duals periodically for rocks that may be lodged between them.
- Operators must regularly check tires, steering mechanism, air system brakes, bunks, wrappers, stakes, stake cables, lights and trailer to ensure their vehicle is in sound operating condition.
- All vehicles must operate with headlights ON, except when stopped to clear a vehicle in the dark; then headlights, including daytime running lights, are to be turned off and park lamps left on.
- Use your back-up lights when meeting other traffic to check for logs that have worked their way loose and are sticking out.
- No one will be permitted to "jump rides" on the running boards of a moving truck.
- Drivers should carry pieps (avalanche beacons) in areas of avalanche hazards. Pieps must be turned on when traveling through the avalanche hazard area. Areas will be identified as having avalanche and Pine View Trucking Ltd will monitor avalanche hazard bulletins and post in scale house when operations are active in drainages. Signs will be posted identifying areas of avalanche hazard.

7.6.3 LOG HAULING – ON THE LOGGING BLOCK

- On the block, only the posted radio frequency is to be used between loader and truck.
- Empty trucks traveling to landings shall travel at safe speeds and give right-of-way to loaded trucks and crew buses.
- High visibility hard hats and apparel must be worn on landings and when tightening wrappers and checking loads.
- When backing onto landings, ensure workers and equipment are in the clear - sound back-up warning.

7.6.4 TRUCK LOADING PROCEDURES

- **Do Not** go under the reach of a trailer.
- Ensure trailer reach is securely fastened, brake, air hose and safety chains are connected and air tanks are charged.
- The driver should be in the cab or stand in a visible, safe location (in front of the truck) during the loading process and ensure the load is properly placed onto the trailer.
- Ensure you have visual contact with the loaderman
- The loader man will not load a truck that doesn't have a certified bullboard.
- No one shall tag the load or work on truck, while it is being loaded.
- When loading short logs in the interior of a long log load, the outer logs (bunk and stake logs) must be of sufficient strength to preclude the load breaking in the middle.
- The truck driver must be looking of unsafe loading hazards while the load is being placed on the truck.
- The truck driver will notify the loader man immediately of any issues over the radio.
- The truck driver is responsible for ensuring that the log delivery ticket is completed accurately

- All timber-mark stamping and paper work that is required by the Ministry of Forests must be completed before leaving the landing or cut block.
- When timber mark stamping occurs on the landing, only stamp logs when the loader is well away from the truck.
- Ensure correct timber mark is properly marked on the load before leaving the block:
  - on the left hand side, (driver's side) close to the front
  - on the right hand side, close to the front
- Inspect the load before leaving the landing, paying particular attention to protruding branches, logs not contained within the stakes, any short logs which could slide or roll off the load.
- Driver and loader men are responsible for how the truck is loaded. If something is not right, it is up to the Log truck driver and loader man to have it corrected.

DO NOT LEAVE THE LOADING AREA UNTIL THE PROBLEM IS CORRECTED.

- Truck drivers shall not load themselves or otherwise work alone unless a buddy system or man check system is in place.
- Stop to check load and tighten wrappers as conditions require.
- CLEAN UP LOADS - OVERWEIGHTS:
- Clean up loads will be paid up to a maximum of 1,500 kgs over legal axle weight when highway restrictions are not in effect. This is the maximum allowed under the Motor Vehicle Act Regulations. Weights over this amount pose a safety risk to both the driver and approaching traffic and are in violation of the Occupational Health and Safety Regulation.

7.6.5 APPLYING WRAPPERS

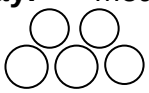
A minimum of two binders and cinches should be affixed to the load of logs to secure the load before leaving the landing. A loaded truck may move a short distance from the loading area before securing the load only if the movement will not present a hazard to any workers

There is several safe ways to apply wrappers to a load. All ways should be considered to ensure driver reduces their exposure to potential hazards. Both loader operator and driver should be involved in this decision process and ensure the load is safe. The following are acceptable methods of applying wrappers and should be situation specific on which way is used.

7.6.5.1 DEFINITIONS

Safe location: Best if within sight of loader operator, means an area that affords good footing and is out of the way of site operations. Not two or more kilometers down the road or at the stamp hammer.

Secure Lay: Means that a log is secured between two logs in the row below.



Hazards: Dangers to driver, such as shorts on top of load, log with crook or deformity that is not secure in the lay or excessively high load.

Driver Safe Position: While loading, either in or in front of cab of the unit. On restrained side of load when placing wrappers on. If having the wrappers drape over by loader, the driver must stay at side of cab. At no time will the driver do any activities around the unit while being loaded.

7.6.5.2 GENERAL RULES

The loader man and the truck driver must ensure the load is safe prior to wrappers being placement. The loader man must confirm the top of the load is safe. The truck driver must confirm that the side opposite the loader is safe.

All off-highway log loads MUST be secured by the loader prior to wrappers being placed on the load – **No exceptions**.

Before placing wrappers on load:

- Driver to stand in a safe location, visible to the loader man.
- The loader man will secure load with the loader.
- The truck driver will wait for the signal from the loader man before proceeding to place wrappers on the load.

Off-highway Wrapper Placement:

- Place wrappers so that they do not interfere with the forks of the unloading machine. They should be placed within two feet of the truck stakes.
- The loader man and the truck driver must confirm the load is safe prior to the wrapper placement:
- The loader man must confirm the top of the load is safe.
- The truck driver must confirm the off side to the loader is safe.
- The loader man and the truck driver must examine the load to ensure there are no small chucks, pieces, sweepers or limbs hanging off the load.

- The loader man and the truck drive shall look for logs that may become dislodged and logs that protrude over the stakes.
- The truck driver shall have all unsafe issues corrected before placing wrappers on leaving the loading area.

Highway long loads **DO NOT** require securement by the loader man, **EXCEPT** when:

- Loader man cannot see the top of the load
- The truck driver is not comfortable placing wrappers without having the load secured.

Where the loader man and truck driver have decided securement is not required, the truck will pull ahead to the **nearest level location** and place wrappers on load.

Logging trucks are NOT to leave loader until wrappers and cinches are installed and Sweepers are removed or adequately secured, unless otherwise determined safe to move.

Before placing wrappers, ensure there are no small log pieces, which may dislodge, or stems protruding from the load, and have the load secured by the loader on the side the wrappers are being installed.

Before leaving the block, place two wrappers on the load at least three meters apart and fasten securely.

Look up when throwing and securing wrappers - watch for logs.

Always look up when throwing binders over the load. When pulling binders off, always walk away from the truck. Never stand directly alongside the truck or beneath the load when load is not secured.

7.6.5.3 OPTION ONE

If all logs are full length (no shorts), bunk to bunk and the centre of all logs are below the stakes the driver may move forward to a safe location and apply wrappers.

7.6.5.4 OPTION TWO

Off highway load where the loader operator and driver have determined that the logs are secured within the lay of other logs the driver has the option of moving to a safe location and applying wrappers. The driver may request the loader operator to drape wrappers over load.

The following procedure must be followed:

- Loader operator confirms load to be secure
- Driver stays at the front of load next to cab.
- Loader operator moves grapple at ground level to the driver.
- Driver places (throws) chain end of wrapper through grapple.
- Loader operator places wrapper over load.
- Repeat with second wrapper.
- Driver then cinches load.

7.6.5.5 OPTION THREE

If the loader operator feels the load is not stable or too high for safe wrapping of load without restraining load, the loader operator must advise the driver the load will be restrained. The wrappers can be draped as in Option Two and the load restrained while the driver applies cinches. Or the load is restrained while the driver throws the wrappers on and then cinches the load. At no time should the driver walk on the unrestrained side of the load until the wrappers are on.

7.6.6 CUT-TO-LENGTH (CTL) SAFE LOADING PROCEDURES

- All logs **MUST** be loaded secure in the lay.
- All logs **MUST** be below the stake height (maximum 4,15m or 13’6”).
- All logs **MUST** be restrained by a minimum of two wrappers.
- Loads **DO NOT** require securement by the loader man, **EXCEPT** where:
  - Shorts have been loaded on top of the load.
  - The loader man cannot see the top of the load.
  - The truck driver is not comfortable placing wrappers without having the load secured.
- The expectation for CTL loads is that **SHORT LOGS** be placed within load. Short logs are defined as logs that won’t reach from stake to stake.

- In the event that shorts are placed on top of the load, these loads **MUST** be secured by the loader man, prior to wrapper placement by trucker. In addition, the loader man must ensure the shorts on top of the load are restrained by a minimum of two wrappers. Loader man is responsible for informing the trucker when additional wrappers are required to restrain short logs on top of load.
- Trucker must abide by request of loader man to put on additional wrappers on the load. Shorts on top of the load that are not restrained by two wrappers will automatically be fined as an "Unsafe Load".
- Where the loader man and truck driver decide securement is not required, the trucker will pull ahead to the **nearest level location** and place load wrappers.
- **The placement of wrappers while the truck is being loaded is strictly prohibited. This includes the wrapping of CTL bundles, while subsequent bundles are being loaded on the truck.**
- Before putting wrappers on the load the truck drive must again have a close look at all sides of the load to ensure there are no hazards. If any hazards are found they must be corrected prior to applying the wrappers.

7.6.7 LOG HAULING - IN THE MILL YARD - GENERAL

Refer to applicable Road User and Log Transportation Safety Procedures.

- High visibility hardhats, Apparel (blaze orange), Safety Glasses and Safety footwear must be worn in log yards.
- Smoking is not permitted in log yards. There are designated smoking areas throughout the plant only.
- Log Yard speed limit is 25 km/h maximum. Observe all posted speed limits.
- When going on or off the weigh scale the maximum allowable speed is restricted to 5km/hour.
- Always approach log yard area with caution.
- For trucks to move safely within the log yard and receive direction from loaders, all trucks must have the radio frequency.
- Loaders have the right-of-way in the log yard. Never drive behind log yard equipment unless the operator waves you on. Always assume the operator does not see you.
- Travel with lights on.
- All truck passengers must remain at the scale house until the truck unloads and weighs out. Truck passengers must be 12 years of age and older. A passenger is allowed beyond the scale house for training purposes of a new driver only. The driver in training must wear the required personal protective equipment.

- Before any wrappers are removed, the load must be restrained by using the Unwrapping Station. If the Unwrapping Station is down, loads can be restrained by a Letourneau or wheel loader. Wrappers are NOT to be taken off at the banding station. Banding is not a substitute for wrappers
- Do Not remove wrappers from load until it is restrained by log loader or other suitable means. Be in view of operator until load is restrained. Minimum two wrappers on a load, three wrapper loads may have center wrapper removed prior to restraint. Once wrappers are removed there is no access around load.
- A worker may cross under a boom of mobile equipment only when the boom is at rest on a load of logs. The boom will be used as a restraint for the logs on a truck
- If there are any problems or questions please discuss with the Frost Lake Logging Ltd. Supervisors.
- The use of cellular phones is prohibited while driving the vehicle on site.

7.6.7.1 DRIVER'S RIGHTS AND RESPONSIBILITIES FOR SAFETY

- Wear the required Personal Protective Equipment (PPE)
- Comply with the rules and safety procedures within the log yard area as informed or posted.
- Report unsafe acts or damage to Supervisor immediately
- You have the right to refuse unsafe work

7.6.7.2 LOG YARD UNLOADING PROCEDURES

- Hard hats, hi-visibility attire, safety toed boots (green triangle-CSA approved) , must be worn **AT ALL TIMES** when the driver and the trainee driver are outside the cab of the truck
- Drivers are to check the radio frequency for the correct frequency of the mill yard upon entering the mill area
- All loaders have the right of way on the mill/yard site
- No passengers are to ride in truck beyond the weigh scales. Unless driver in training is attending
- Wait for the verbal STOP signal from the loader operator (via radio communications)

7.6.7.3BANDING

- Pull truck up to the Banding Station.
- Obey all banding station traffic light signals.
- The load must be parked no further than 2 feet from the edge of the banding station.
- Stand clear and allow Banderman to throw band over the front of the load.
- Truck driver to pass the front band under the load and back to the Banderman.
- Stand clear and allow Banderman to throw band over the back of the load.
- Truck driver to pass the back band under the load and back to the Banderman.
- Self loaders are permitted to load their trailers anywhere in the yard except on the main road in the middle of the yard.

WRAPPERS ARE NOT TO BE REMOVED
UNTIL LOAD IS ASSESSED AND SECURED!

7.6.7.4UNWRAPPING STATION PROCEDURES

- All trucks must use the unwrapping station.
- Truck drivers are to proceed as directed by the Scale house to the unwrapping station.
- The truck has to be parked close enough to the unwrapping station that the restraining arms touch the load when applied. If the unwrapping station is being repaired, trucks can use the Letourneau to restrain the load.
- Follow all posted instructions in wrapper removal area.
- All restraining arms must be lowered.
- When lifting the load securing arms, be aware of pinch areas.
- Be aware of load arm bounce back.
- BEFORE removing wrappers LOOK UP & AROUND your load. Assess effectiveness of the log restraint area. If your assessment reveals unsecured logs or you think there may be unsecured logs in your load, call the Letourneau or wheel loader operator on the radio to secure your load instead of using the securing arms. Do this BEFORE removing wrappers. When removing wrappers stand in a safe area. A log could roll off load.
- Remove wrappers from load.
- Once wrappers are removed, driver will then lift the load securing arms.
- Do not exit or enter from the back of the unwrapping station.
- Reduce yard speed when wrappers are removed to prevent logs from bouncing out of load.

In the event that the wrapper station or trailer loader is not operational the following procedures will take place:

Wrapper removal with the log stacker:

1. The log stacker will unload from the passenger side.

2. Upon stopping, the driver will walk to the front of the truck. When and only when the log stacker has the load secured and eye contact has been made, the driver will pull off the wrappers, taking them to the front of the truck, in sight of the stacker operator to roll up! The stacker will not lift the load until the driver has signaled all clear.

Wrapper removal with front end loader:

Log truck driver procedures in the event of the stacker breaking down the following procedure will take place:

1. Front-end loader will secure load from the driver's side.

2. Upon stopping, driver will walk immediately to rear of truck. When load is secured by loader and eye contact is made, the rear wrapper will be removed first. The driver may not walk under the raised boom when going to remove the front. wrapper. He must walk around the back of the loader. When front wrapper is removed, proceed to front of truck to roll them up. The loader is not to move until driver has signaled all clear.

3. The loader will go to the passenger side to pick load off. The driver will assist loader with back and forward motion as required to off-load, if logs get hung up on stakes.

7.6.7.5 TRAILER LOADER SAFE WORK PROCEDURE

- Familiarize yourself with the crane operations.
- Make sure lift hook is firmly hooked
- While loading your trailer inspect the lifting strap for damage
- Be sure not to walk under a trailer that is suspended in the air
- Keep trailer straight by pushing or pulling on the tires by using provided pike pole.
- There should be only one operator to avoid" pinch points" with others
- When letting trailer down, make sure it is in proper position before letting all the way down, as the hook is self-releasing.

- After the hook is clear of the truck, push the reset home button located in the building's post. This will automatically resent the crane for the next truck in line.
- Report any malfunctions of the trailer loader, including frayed cable to the scales immediately
- In the event the trailer loader is broken down, the log stacker will return to where the truck was off-loaded and load it after the stakes are folded down. Assist load stacker in getting the lift strap onto the fork by standing on driver's side and pushing it onto the fork. The stacker will not lift the trailer until the driver is back in the cab.
- Proceed to the Outbound Scale.

CAUTION: The wide forks on the stacker are very hard on lifting straps, so check them regularly!!!

7.6.8 LOWBED SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Toed Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Equipment Inspection, prepare for startup	1. Pre-trip inspection ➢ for faulty equipment ➢ leaks, worn parts 2. Slipping and tripping hazards	1. Operator must ensure the pre-trip book is filled out daily: 2. Check fifth wheel connection, jaws, and electrical lines. 3. Ensure: ➢ there is proper and adequate blocking ➢ chains and cinches are in good condition 1. Always use three point contact when entering, leaving and inspecting equipment.
2. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	**See SOP 6.4 & 6.6** 1. Notify Supervisor when entering and leaving worksite 2. Ensure no workers in equipment operating area. 3. Always use three point contact when entering, leaving and inspecting equipment. 4. Make sure the machine footholds, areas that worker is required to walk on are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving unit.
3. Lowbed Process-Safety	1. Loading/Unloading ➢ stability of unit ➢ rollover hazard loading equipment ➢ poorly secured or marked loads as a hazard to road users 2. Load Securement	1. Ensure: ➢ the ground is solid and level ➢ there is room for maneuvering the load ➢ sufficient clearance overhead and around unit ➢ the truck is properly secured ➢ no sideways hauling is permitted 2. The operator: ➢ shall wear provided seatbelts ➢ move equipment slowly and under control at all times ➢ block, secure and mark loads according to DOT specifications ➢ all loose debris is cleared off or secured to deck

7.6.8 LOWBED SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
3. Lowbed Process-Safety (cont)	3. Workers in proximity of loading/unloading 4. Hauling ➢ load stability ➢ road conditions	1. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ operators must ensure that all workers are clear of the hazardous area before loading 1. The operator: ➢ shall be aware of load characteristics: center of gravity, deck movement, cornering concerns, clearances and braking concerns ➢ shall be aware of road traffic and conditions ➢ shall check securement regularly **Observe SOP 6.6** ➢ Use load marking devices ➢ Use pilot car as required ➢ Use cables and chains that are in good condition and capable of adequately securing loads ➢ Engage swing lock when machine is on lowbed
4. Lowbed Process-Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills or leaks 2. The operator must: ➢ contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.6.9 HIAB SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Toed Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Equipment Inspection, prepare for startup	1. Pre-trip inspection ➢ for faulty equipment ➢ leaks, worn parts 2. Slipping and tripping hazards	1. Operator must ensure the checklist is performed: 2. Check fifth wheel connection, jaws, electrical lines. 3. Ensure: ➢ there is proper and adequate blocking ➢ chains and cinches are in good condition 1. Always use three point contact when entering, leaving and inspecting equipment.
2. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 1. Always use three point contact when entering, leaving and inspecting equipment. 2. Make sure the machine footholds, areas that worker is required to walk on are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving unit.
3. Hiab Process- Safety	1. Loading/Unloading ➢ stability of unit ➢ rollover hazard loading equipment ➢ poorly secured or marked loads as a hazard to road users 2. Hoist operation ➢ lifting hazards 3. Load Securement	1. Ensure: ➢ the ground is solid and level ➢ there is room for maneuvering the load ➢ sufficient clearance overhead and around unit ➢ the truck is properly secured 1. The operator: ➢ shall use rated lifting chains and straps ➢ shall ensure workers are clear of loads being lifted and tag lines are used to control loads ➢ shall wear provided seatbelts ➢ move equipment slowly and under control at all times ➢ block, secure and mark loads according to DOT specifications

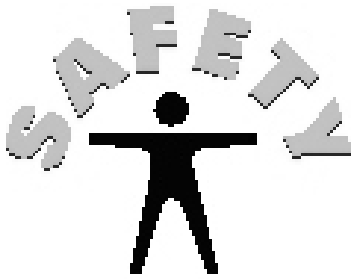
7.6.9 HIAB SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
3. Hiab Process- Safety (cont'd)	4. Workers in proximity of loading/unloading 5. Hauling ➢ load stability ➢ road conditions	1. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ operators must ensure that all workers are clear of the hazardous area before loading 1. The operator: ➢ shall be aware of load characteristics: centre of gravity, deck movement, cornering concerns, clearances and braking concerns ➢ shall be aware of road traffic and conditions ➢ shall check securement regularly ➢ observe Sections 6.7.1 and 6.7.2
4. Hiab Process- Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills or leaks 2. The operator must: ➢ contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.7 MAINTENANCE SAFE WORK PROCEDURES

All operations will be in accordance with occupational health and safety regulations, Company and contractor policies.

All operations will be conducted in accordance with MoWLAP regulations, Company fuel, hazardous waste and spill procedures and ISO14001 Environmental Management System.

Operations that are not in accordance with approved plans or procedures will be reported immediately to the contractor or Company Supervisor.



7.7.1 MAINTENANCE PRECAUTIONS

All equipment repairs are to be performed according to manufacturer's service manual.

The serviceman or mechanic may be unfamiliar with many of the systems on this machine. This makes it important to use caution when performing service work. A working knowledge of the system and/or component is important before the removal or disassembly of any component.

Because of the size of some of the machine components, the serviceman or mechanic should check the weights noted in this Manual. Use proper lifting procedures when removing any components.

Following is a list of basic precautions that should always be observed.

1. Read and understand all warning plates and decals on the machine before operating, lubricating or repairing the machine.

2. Always wear protective glasses and protective shoes when working around machines. In particular, wear protective glasses when pounding any part of the machine or its attachments with a hammer or sledge. Use welder's gloves, hood/goggles, apron and other protective clothing appropriate to the welding job being performed. Do not wear loose-fitting or torn clothing. Remove all rings from fingers when working on machinery.

3. Disconnect battery and discharge any capacitors before starting to work on machine. Hang “Do Not Operate” tag in the Operator’s Compartment.

4. If possible, make all repairs with the machine parked on a level, hard surface. Block machine so it does not roll while working on or under machine.

5. Do not work on any machine that is supported only by lift jacks or a hoist. Always use blocks or jack stands to support the machine before performing any disassembly.

6. Relieve all pressure in air, oil or water systems before any lines, fittings or related items are disconnected or removed. Always make sure all raised components are blocked correctly and be alert for possible pressure when disconnecting any device from a system that utilizes pressure.

7. Lower the bucket, blade, ripper or other implements to the ground before performing any work on the machine. If this can not be done, make sure the bucket, blade, ripper or other implement is blocked correctly to prevent it from dropping unexpectedly.

8. Use steps and grab handles when mounting or dismounting a machine. Clean any mud or debris from steps, walkways, or work platforms before using. Always face machine when using steps, ladders and walkways. When it is not possible to use the designed access system, provide ladders, scaffolds, or work platforms to perform safe repair operations.

9. To avoid back injury, use a hoist when lifting components which weigh 23 kg (50 lb) or more. Make sure all chains, hooks, slings, etc. are in good condition and are in the correct capacity. Be sure hooks are positioned correctly. Lifting eyes are not to be side loaded during a lifting operation.

10. To avoid burns, be alert for hot parts on machines which have just been stopped and hot fluids in lines, tubes and compartments.

11. Be careful when removing cover plates. Gradually back off the last two bolts or nuts located at opposite ends of the cover or device and pry cover loose to relieve any spring or other pressure, before removing them completely.

12. Be careful when removing filler caps, breathers and plugs on the machines. Hold a rag over the cap or plug to prevent being sprayed or splashed by liquids under pressure. The danger is even greater if the machine has just been stopped because fluid can be hot.

13. Use only the recommended tools which are listed for a specific procedure. Be sure the tools are in good condition and that you fully understand how to use them before performing any service work. Failure to use the listed tools can cause damage to components or serious personal injury or death.

14. Reinstall all fasteners with same part number. Do not use a lesser quality fastener if replacements are necessary.

15. Repairs which require welding should be performed only with the benefit of the appropriate reference information and by personnel adequately trained and knowledgeable in welding procedures.

16. Do not damage wiring during removal operations. Reinstall the wiring so it is not damaged nor will it be damaged in operation by contacting sharp corners, or by rubbing against another object or hot surface. Do not connect wiring to a line containing fluid.

17. Be sure all protective devices, including guards and shields, are properly installed and functioning correctly before starting a repair. If a guard or shield must be removed to perform the repair work, use extra caution.

18. Always use lift arm supports to keep bucket arms raised and bucket tilted down when maintenance or repair work is performed which requires the bucket in the raised position.

19. Loose or damaged fuel, lubricant and hydraulic lines, tubes and hoses can cause fires. Do not bend or strike high pressure lines or install ones which have been bent or damaged. Inspect lines, tubes and hoses carefully. Do not check for leaks with your hands. Pin hole (very small) leaks can result in a high velocity oil stream that will be invisible close to the hose. This oil can penetrate the skin and cause personal injury. Use cardboard or paper to located pin hole leaks.

20. Tighten connections to the correct torque. Make sure that all heat shields, clamps and guards are installed correctly to avoid excessive heat, vibration or rubbing against other parts during operation. Shields that protect against oil spray onto hot exhaust components in even of a line, tube or seal failure must be installed correctly.

21. Do not operate a machine if any rotating part is damaged or contacts any other part during operation. Any high speed rotating component that has been damaged or altered should be checked for balance before reusing.

22. On track-type machines, be careful when servicing or separating tracks. Chips can fly when removing or installing a track pin. Wear safety glasses. Track can unroll very quickly when separated. Keep away from front and rear of machine. The machine can move unexpectedly when both tracks are disengaged from the sprockets. Block the machine to prevent it from moving.

7.7.2 SUPERVISOR SAFE WORK PROCEDURES

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection
3. Gloves (as required)
4. Safety Footwear
5. Safety Eye Protection (as required)
6. High Visibility Vest (as required)

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
1. Know and Understand the Operation		➢ Know, understand and enforce Company policies. ➢ Know, understand and be familiar with all safe Operation work procedures and lockout procedures in your immediate area and any area you may be required to enter. ➢ Know the requirements of the OH&S Regulation with regards to mobile equipment and shops. ➢ **Do Not** tamper with electronic devices unless properly instructed as to the procedure. ➢ When entering any area, take all necessary precautions not to put yourself or anyone else in a dangerous situation. ➢ Review Safe Work Procedures with your employees biannually. ➢ Inspire, motivate, train and coach employees to be safe and productive and to prevent problems from occurring in all aspects of production, maintenance and mobile equipment. ➢ Ensure employees know the placement and use of buttons for their job functions. ➢ Ensure employees use and exercise correct safe working procedures when performing their job. ➢ Before starting equipment, ensure co-workers are clear of working area.
2. Effective Supervision creates a Safe Worksite and Relations		➢ Be accountable for a safe worksite. ➢ Maintain a positive approach to employees. ➢ Employee's safety concerns must be given the Good Labor highest priority. ➢ Trust your co-workers.
3. Working Around Equipment		➢ Be alert to heavy equipment moving back and Equipment forth. ➢ Stay within the operator's vision. ➢ **NEVER** turn your back on oncoming traffic. ➢ **Do Not** enter equipment hazards zone. ➢ Never take for granted that the truck driver or equipment operators can see you. ➢ **Do Not** walk under suspended loads.

7.7.2 SUPERVISOR SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
4. Working Around Any Type of Fumes and Airborne Toxins		➢ Ensure the area is or can be well ventilated. ➢ Appropriate respiratory equipment is used.
5. Access and Egress	**Do Not** Jump – personal safety	➢ Use proper means of dismounting equipment. ➢ Use caution when entering or leaving the unit, use the provided steps and handholds. ➢ Use the Three Point contact method for entering and exiting equipment.
6. Use Lights During Poor Visibility Times	Injury to co-workers	➢ At dawn, dusk, and during dusty periods, etc.
7. Operation	Workers in danger area	➢ Check to make sure no one will be endangered when operating the machine. ➢ Ensure Operators know they are directly responsible for the safe operation of their units at all times. ➢ Develop good communication with co-workers.
8. Lifting	Pulled muscles or back strain	➢ Follow proper lifting procedures, exercise caution and get help when needed. ➢ Work on solid ground when lifting equipment. ➢ Get help before lifting or moving heavy objects.
9. Using Tools		➢ Use only approved proper tools. ➢ Always wear eye protection when using air tools. ➢ **Do Not** use air tools for any other purpose other than what it is intended for. ➢ Frequently check air hoses and clamps. ➢ **Do Not** weld or use torches near chemicals, compressed air or flammable liquids.
10. Condition and Location of Tools	Personal injury form defective equipment	➢ Ensure tools are in good working condition. ➢ Grinders must be fitted with guards before using.
11. Safety		➢ Keep flammable materials away from areas where welding is being performed. ➢ Know and recognize worksite hazards. ➢ Ensure all the appropriate personal protective equipment is worn at all times.
12. Chemical Clean-Up	Skin and eye irritation	➢ Wear proper personal protective equipment. ➢ Follow written chemical procedures. **See WHMIS Section 5.1 Page 72.**

7.7.3 PARTS PERSON SAFE WORK PROCEDURES

Personal Protective Equipment:
1. High Visibility Safety Headgear
2. Hearing Protection
3. Gloves (as required)
4. Safety Footwear
5. Safety Eye Protection (as required)
6. High Visibility Vest (as required)

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
1. Equipment Usage		➢ Only persons authorized by a Supervisor are to operate any machines.
2. Check Forklift Only authorized personnel are to operate machines.	Injury to operator, pedestrians or co-workers, scalds or burns Eliminate downtime Mechanical deficiencies	➢ Check machine and complete forklift checklist prior to starting machine. To be checked at the start and end of each shift. ➢ Check fuel, oil and water levels. ➢ Check windows, lights, tires, etc. on machine. ➢ Check brakes and hydraulics. ➢ Check if forks work properly - tilt up, down, forward and backward. Shift to side also.
3. Working Around any Type of Fumes & Airborne Toxins		➢ Ensure the area is or can be well ventilated. ➢ Appropriate respiratory equipment is used.
4. Working Around Equipment		➢ Be alert to heavy equipment moving back and Equipment forth. ➢ Stay within the operator's vision. ➢ **NEVER** turn your back on oncoming traffic. ➢ **Do Not** enter equipment hazards zone. ➢ Never take for granted that the truck driver or equipment operators can see you. ➢ **Do Not** walk under suspended loads.
5. Access and Egress		➢ Use proper means of dismounting equipment. ➢ Use caution when entering or leaving the unit, use the provided steps and handholds. ➢ Use the Three Point contact method for entering and exiting equipment.
6. Lifting		➢ Follow proper lifting procedures, exercise caution and get help when needed. ➢ Work on solid ground when lifting equipment. ➢ Get help before lifting or moving heavy objects
7. Condition and Location of Tools	Personal injury from defective equipment	➢ Ensure tools are in good working condition. ➢ Grinders must be fitted with guards before using

7.7.3 PARTS PERSON SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
8. Using Tools		➢ Use only approved proper tools. ➢ Always wear eye protection when using air tools. ➢ **Do Not** use air tools for any other purpose other than what it is intended for. ➢ Frequently check air hoses and clamps
9. When Using Compressed Air to Blow Off Machines	Foreign objects in eyes Puncture wounds from objects in the airline	➢ Wear eye protection and gloves when using compressed air to blow down. ➢ **Do Not** use compressed air to blow off clothing. ➢ After use, hang up hose
10. Fueling	Fire, explosions, burns to body Spills	➢ **NO** Smoking near or around fueling area. ➢ Know emergency spill procedures. ➢ Shut engine off before fuelling. ➢ Wear leather gloves. ➢ Keep fittings free of dust and tightened securely. **Filling Propane Tank**: ➢ Make sure bleed off valve on filler hose is shut. ➢ Connect filler hose to tank securely and open bleeder valve on tank. ➢ Push start and fill tank to 85%. ➢ When full to 85%, shut off pump, close bleeder valve on tank and open bleeder valve on filler hose. ➢ Disconnect filler hose from tank and place on propane tank frame. ➢ Check for leaks
11. Safety		➢ Keep flammable materials away from areas where welding is being performed. ➢ Know and recognize worksite hazards. ➢ Ensure all the appropriate personal protective equipment is worn at all times
12. Chemical Clean-Up	Skin and eye irritation	➢ Wear proper personal protective equipment. ➢ Follow written chemical procedures. **See WHMIS Section 5.1 Page 72.**
13. Housekeeping	Personal safety and safety of co-workers	➢ Keep the work area neat and clean at all times

7.7.4 FIELD MECHANIC SAFE WORK PROCEDURES

Personal Protective Equipment:
1. High Visibility Safety Headgear
2. Hearing Protection
3. Gloves (as required)
4. Safety Footwear
5. Safety Eye Protection (as required)
6. High Visibility Vest (as required)

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
1. Prepare for Start-Up of Machinery	Personal safety	➢ Complete visual check of machine. ➢ Check oil and coolant levels. ➢ Check brake operation. ➢ Understand all safety precautions and warnings pertaining to the machine. ➢ Understand the signals for controlling equipment operations. ➢ Signals shall be given by one worker.
	Faulty Equipment	➢ Check that the machine is equipped with the proper fire extinguisher, which have been inspected as recommended. ➢ Check that all covers and guards are in place and secure. ➢ Clean the windshield, mirrors, steps, grab bars and compartment before start up.
	Tripping, slips, falls and poor visibility	➢ Wire rope connectors and hydraulic lines shall be of an approved type. ➢ Follow recommend manufacturers and Company policies and procedures.
2. Working Around Equipment		➢ Be alert to heavy equipment moving back and Equipment forth. ➢ Stay within the operator's vision. ➢ **NEVER** turn your back on oncoming traffic. ➢ **Do Not** enter equipment hazards zone. ➢ Never take for granted that the truck driver or equipment operators can see you. ➢ **Do Not** walk under suspended loads.
3. After Start-Up		➢ Check oil and air pressures and operation of other gauges and lights. ➢ Visual check for coolant and oil leaks. ➢ Unplug machine (if plugged in during winter months). ➢ Operate controls and check hydraulic operation. ➢ **USE EXTREME CAUTION WHEN MOVING MOBILE EQUIPMENT** - ensure no one is working in or around equipment.
	Workers in danger area	➢ The provided seat belt must be worn. **See OH&S Regulation Part 16; Sections 16.22 and 16.33.**

7.7.4 FIELD MECHANIC SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
4. Servicing, Repairing and Maintaining Mobile Equipment	Machine collapse	➢ Ensure mobile equipment is in a safe condition to operate at all times. ➢ Repair and/or report safety problems to Supervisor. ➢ **USE EXTREME CAUTION** when welding or cutting. (All required safety equipment must be used.) ➢ Ensure all tools and repair equipment is in satisfactory condition to effect repairs. ➢ Use proper and safe rigging procedures where appropriate and when required. ➢ Fire suppression system to be maintained and precautionary measures taken to keep high hazard areas clear of debris. ➢ Raised blades, booms or other equipment components shall be secured with blocking or approved safety supports during maintenance. ➢ During maintenance activities, equipment shall be locked out or when lock out is not possible, a sign posted on controls identifying that the Equipment is not operational ➢ Equipment shall be serviced to not less than the manufacturer's specifications. ➢ The machine must be shut down before any adjustments or repairs are done. ➢ Repairs must be undertaken while any part of the machine is in motion, except oiling and greasing may be carried out with the power unit only left running and if done under the direction of an operator who remains at the controls of the machine. ➢ Ensure walking areas are free from oil, grease, ice, etc ➢ **Do Not** leave equipment running while adjusting or fueling.
5. Working Around Any Type of Fumes and Airborne Toxins		➢ Ensure the area is or can be well ventilated. ➢ Appropriate respiratory equipment is used.
6. Testing or Servicing Equipment	Personal safety Faulty equipment Mechanical deficiencies	➢ Ensure all guarding is in place. ➢ **Do Not** place yourself in the "bite". ➢ Check for adequate turning or maneuvering clearance. ➢ Check for proper operation of all controls and protective devices while moving slowly in an open area i.e. left and right steering, all brakes work, engine governor control level, and other devices such all lights, backup alarm and horns all work.

7.7.4 FIELD MECHANIC SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
7. Operation	Personal injury, equipment damage	➢ Operators are directly responsible for the safe operation of their units at all times. ➢ Develop good communications with co-workers. ➢ Equipment must be under control at all times and must be operated at safe speeds. ➢ Always look behind before backing up. ➢ **Do Not** make sudden turns, or turns at high speed. This could cause the machine to upset. ➢ Ensure all vehicles are parked at a safe distance away from other machines. ➢ No worker shall hold onto any part of the rigging or the machine while the machine is in motion.
	Falling off, possibility of serious injury	
8. Parking	Runaway machine causing damage or injury to co-workers	➢ Park on level ground. ➢ Lower the machine's equipment/attachments to the ground before leaving the cab when parking. **See OH&S Regulation Part 16; Section 16.36.** ➢ Before leaving the unit, the park brake shall be set. ➢ When stopped and the operator dismounts the unit it shall be locked or rendered incapable of being started by an unauthorized person.
	Personal safety and safety of co-workers	
9. Use Lights During Poor Visibility Times	Injury to co-workers	➢ At dawn, dusk, and during dusty periods, etc.
10. Access and Egress	**Do Not** Jump! – personal safety	➢ Use proper means of dismounting equipment. ➢ Use caution when entering or leaving the unit, use the provided steps and handholds. ➢ Use the Three Point contact method for entering and exiting equipment.
11. Lifting	Pulled muscles and back strain	➢ Follow proper lifting procedures, exercise caution and get help when needed. ➢ Work on solid ground when lifting equipment. ➢ Get help before lifting or moving heavy objects
12. Condition and Location of Tools	Personal injury from defective equipment	➢ Ensure tools are in good working condition. ➢ Grinders must be fitted with guards before using

7.7.4 FIELD MECHANIC SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
13. Using Tools		➢ Use only approved proper tools. ➢ Always wear eye protection when using air tools. ➢ **Do Not** use air tools for any other purpose other than what it is intended for. ➢ Frequently check air hoses and clamps ➢ **Do Not** weld or use torches near chemicals, compressed air or flammable liquids. ➢ Use appropriate eye protection with grinders, hammering pins, cutting cable and operating cutting torches.
14. Using Compressed Air to Blow off Machinery	Foreign objects in eyes Puncture wounds from objects in the airline	➢ Wear eye protection and gloves when using compressed air to blow down. ➢ **Do Not** use compressed air to blow off clothing. ➢ After use, hang up hose
15. Fueling Machines	Fire, explosions, burns to body Spills	➢ Shut off equipment when refueling. ➢ **Do Not** fuel or service machine, or carry out avoidable repairs, near streams, lakes or water bodies. ➢ **NO** Smoking near or around fueling area. ➢ Know emergency spill procedures. ➢ Wear leather gloves.
16. Safety		➢ Keep flammable materials away from areas where welding is being performed. ➢ Know and recognize worksite hazards. ➢ Ensure all the appropriate personal protective equipment is worn at all times
17. Chemical Clean-Up	Skin and eye irritation	➢ Wear proper personal protective equipment. ➢ Follow written chemical procedures. **See WHMIS Section 5.1 Page 72.**
18. Housekeeping	Personal safety and safety of co-workers	➢ Keep the work area neat and clean at all times

7.7.5 TRUCK MECHANIC/SERVICEMAN SAFE WORK PROCEDURES

Personal Protective Equipment:
1. High Visibility Safety Headgear
2. Hearing Protection
3. Gloves (as required)
4. Safety Footwear
5. Safety Eye Protection (as required)
6. High Visibility Vest (as required)

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
1. Pre Start-Up Machinery	Personal safety Mechanical deficiencies	➢ Complete Visual Check of machine. ➢ Check oil and coolant levels. ➢ Check brake operation.
2. After Start-Up		➢ Check oil and air pressures and operation of other gauges and lights. ➢ Visual check for coolant and oil leaks. ➢ Unplug machine (if plugged in during winter months). ➢ Operate controls and check hydraulic operation. ➢ **USE EXTREME CAUTION WHEN MOVING MOBILE EQUIPMENT** - ensure no one is working in or around equipment.
3. Servicing, Repairing and Maintaining Mobile Equipment	Personal safety	➢ Ensure mobile equipment is in a safe condition to operate at all times. ➢ Repair and/or report safety problems to Supervisor. ➢ **USE EXTREME CAUTION** when welding or cutting. (All required safety equipment must be used.) ➢ Ensure main power or tag out are used where applicable ➢ Ensure all tools and repair equipment is in satisfactory condition to effect repairs. ➢ Use proper and safe rigging procedures where appropriate and when required. ➢ Fire suppression system to be maintained and precautionary measures taken to keep high hazard areas clear of debris.
	Machine collapse	➢ Raised blades, booms or other equipment components shall be secured with blocking or approved safety supports during maintenance. ➢ During maintenance activities, equipment shall be locked out or when lock out is not possible, a sign posted on controls identifying that the Equipment is not operational.
	Faulty equipment	➢ Equipment shall be serviced to not less than the manufacturer's specifications. ➢ The machine must be shut down before any adjustments or repairs are done.

7.7.5 TRUCK MECHANIC/SERVICEMAN SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
3. Servicing, Repairing and Maintaining Mobile Equipment Cont'd	Faulty equipment	➢ Repairs must be undertaken while any part of the machine is in motion, except oiling and greasing may be carried out with the power unit only left running and if done under the direction of an operator who remains at the controls of the machine. ➢ Ensure walking areas are free from oil, grease, ice, etc ➢ Ensure all repair equipment and tools are in satisfactory condition to effect repairs. ➢ **Do Not** leave equipment running while adjusting or fueling.
4. Working Around Any Types of Fumes and Airborne Toxins	Personal safety	➢ Ensure the area is or can be well ventilated. ➢ Appropriate respiratory equipment is used.
5. Parking	Runaway machine causing damage or injury to co-workers	➢ Park on level ground. ➢ Lower the machine's equipment/attachments to the ground before leaving the cab when parking. **See OH&S Regulation Part 16; Section 16.36.** ➢ Before leaving the unit, the park brake shall be set.
	Personal safety and safety of co-workers	➢ When stopped and the operator dismounts the unit it shall be locked or rendered incapable of being started by an unauthorized person.
6. Condition and Location of Tools	Personal injury from defective equipment	➢ Ensure tools are in good working condition. ➢ Grinders must be fitted with guards before using.
7. Using Tool		➢ Use only approved proper tools. ➢ Always wear eye protection when using air tools. ➢ **Do Not** use air tools for any other purpose other than what it is intended for. ➢ Frequently check air hoses and clamps ➢ **Do Not** weld or use torches near chemicals, compressed air or flammable liquids. ➢ Use appropriate eye protection with grinders, hammering pins, cutting cable and operating cutting torches.
8. When Using Compressed Air to Blow off Machinery	Foreign objects in eyes Puncture wounds from objects in the airline	➢ Wear eye protection and gloves when using compressed air to blow down. ➢ **Do Not** use compressed air to blow off clothing. ➢ After use, hang up hose.

7.7.5 TRUCK MECHANIC/SERVICEMAN SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
9. Fueling Machines	Fire, explosions, burns to body	➢ Shut off equipment when refueling. ➢ **Do Not** fuel or service machine, or carry out avoidable repairs, near streams, lakes or water bodies. ➢ **NO** Smoking near or around fueling area.
	Spills	➢ Know emergency spill procedures. ➢ Wear leather gloves.
10. Lifting	Pulled muscles or back strain	➢ Follow proper lifting procedures, exercise caution and get help when needed. ➢ Work on solid ground when lifting equipment. ➢ Get help before lifting or moving heavy objects
11. Safety		➢ Keep flammable materials away from areas where welding is being performed. ➢ Know and recognize worksite hazards. ➢ Ensure all the appropriate personal protective equipment is worn at all times
12. Use Lights During Poor Visibility Times	Injury to co-workers	➢ At dawn , dusk, and during dusty periods, etc.
13. Access and Egress	**Do Not** Jump!- personal safety	➢ Use proper means of dismounting equipment. ➢ Use caution when entering or leaving the unit, use the provided steps and handholds. ➢ Use the Three Point contact method for entering and exiting equipment.
14. Equipment Maintenance	Slips and falls	➢ Ensure walking area is free from oil, grease, ice, etc.
15. Housekeeping	Personal safety and safety of co-workers	➢ Keep yard neat and tidy at all times.
16. Chemical Clean-Up	Skin and eye irritation	➢ Wear proper personal protective equipment. ➢ Follow written chemical procedures. **See WHMIS Section 5.1 Page 72.**

7.7.6 MECHANICS HELPER SAFE WORK PROCEDURES

Personal Protective Equipment:
1. High Visibility Safety Headgear
2. Hearing Protection
3. Gloves (as required)
4. Safety Footwear
5. Safety Eye Protection (as required)
6. High Visibility Vest (as required)

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
1. Prepare for Start-Up of Machinery	Personal safety	➢ Complete Visual Check of machine. ➢ Check oil and coolant levels. ➢ Check brake operation. ➢ Understand all safety precautions and warnings pertaining to the machine. ➢ Understand the signals for controlling equipment operations. One worker shall give signals. ➢ Check that the machine is equipped with the proper fire extinguisher, which have been inspected as recommended. ➢ Check that all covers and guards are in place and secure.
	Poor visibility	➢ Clean the windshield, mirrors, steps, grab bars, and compartment before start-up.
	Tripping and falls	➢ Wire rope connectors and hydraulic lines shall be of an approved type.
2. Working Around Equipment		➢ Be alert to heavy equipment moving back and Equipment forth. ➢ Stay within the operator's vision. ➢ **NEVER** turn your back on oncoming traffic. ➢ **Do Not** enter equipment hazards zone. ➢ Never take for granted that the truck driver or equipment operators can see you. ➢ **Do Not** walk under suspended loads.
3. After Start-Up		➢ Check oil and air pressures and operation of other gauges and lights. ➢ Visual check for coolant and oil leaks. ➢ Unplug machine (if plugged in during winter months). ➢ Operate controls and check hydraulic operation. ➢ **USE EXTREME CAUTION WHEN MOVING MOBILE EQUIPMENT** - ensure no one is working in or around equipment.

7.7.6 MECHANICS HELPER SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
4. Servicing, Repairing and Maintaining Mobile Equipment	Personal safety Machine collapse Faulty equipment	➢ Ensure mobile equipment is in safe condition to operate at all times. ➢ Raised blades, booms or other equipment components shall be secured with blocking or approved safety supports during maintenance. ➢ During maintenance activities, equipment shall be locked out or when lock out is not possible, a sign posted on controls identifying that the Equipment is not operational. ➢ Equipment shall be serviced to not less than the manufacturer's specifications. ➢ The machine must be shut down before any adjustments or repairs are done. ➢ Repair and/or report safety problems to Supervisor ➢ Ensure main power or tag out are used where relevant. ➢ **USE EXTREME CAUTION** when welding or cutting. (All required safety equipment must be used). ➢ Use proper and safe rigging procedures where appropriate and when required. ➢ Fire suppression system to be maintained and precautionary measures taken to keep high hazard areas clear of debris. ➢ Repairs must be undertaken while any part of the machine is in motion, except oiling and greasing may be carried out with the power unit only left running and if done under the direction of an operator who remains at the controls of the machine. ➢ Ensure walking areas are free from oil, grease, ice, etc ➢ Ensure all repair equipment and tools are in satisfactory condition to effect repairs. ➢ **Do Not** leave equipment running while adjusting or repairing components.
5. Working Around Any Types of Fumes and Airborne Toxins		➢ Ensure the area is or can be well ventilated. ➢ Appropriate respiratory equipment is used.
6. Testing or Servicing Equipment	Personal safety	➢ Ensure all guarding is in place. ➢ **Do Not** place yourself in the "bite". ➢ Check for adequate turning or maneuvering clearance. ➢ Check for proper operation of all controls and protective devices while moving slowly in an open area i.e. left or right steering, all brakes work, engine governor control level, and other devices such as all light, backup alarm, and horns all work.

7.7.6 MECHANICS HELPER SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
7. Operation	Workers in danger area	➢ Check to make sure no one will be endangered when operating the machine. ➢ Visual check the machine. ➢ Operate the equipment in accordance with the requirements of the **OH&S Regulation Part 16; Sections 16.5 and 16.4.** ➢ Operators are directly responsible for the safe operation of their units at all times.
	Personal injury, equipment damage	➢ Develop good communications with co-workers. ➢ Equipment must be under control at all times and must be operated at safe speeds. ➢ **NO** passengers are to be in the cab of the machine.
	Falling off, possibility of serious injury	➢ Always look behind before backing up. ➢ **Do Not** make sudden turns, or turns at high speed. This could cause the machine to upset. ➢ Ensure all vehicles are parked at a safe distance away from other machines. ➢ No worker shall hold onto any part of the rigging or the machine while the machine is in motion.
8. Parking	Runaway machine causing damage or injury to co-workers	➢ Park on level ground. ➢ Lower the machine's equipment/attachments to the ground before leaving the cab when parking. **See OH&S Regulation Part 16; Section 16.36.** ➢ Before leaving the unit, the park brake shall be set.
	Personal safety and safety of co-workers	➢ When stopped and the operator dismounts the unit it shall be locked or rendered incapable of being started by an unauthorized person.
9. Use of Lights During Poor Visibility Times	Injury to co-workers	➢ At dawn, dusk, and during dusty periods, etc.
10. Access and Egress	**Do Not** Jump! – personal safety	➢ Use proper means of dismounting equipment. ➢ Use caution when entering or leaving the unit, use the provided steps and handholds. ➢ Use the Three Point contact method for entering and exiting equipment.

7.7.6 MECHANICS HELPER SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
11. Equipment and Machine Maintenance	Slips and falls	➢ Ensure walking area is free from oil, grease, ice, etc. ➢ The operator is responsible for maintaining the unit in a safe operating condition at all times. ➢ Regularly inspect the equipment at least twice per shift. ➢ Inspect equipment, hoses, etc. for wear and tear leaks or ground disturbances. ➢ Frequently check air hoses and clamps.
12. Lifting	Pulled muscles or back strain	➢ Follow proper lifting procedures, exercise caution and get help when needed. ➢ Work on solid ground when lifting equipment. ➢ Get help before lifting or moving heavy objects.
13. Condition and Location of Tools **14. Using Tools**	Personal injury from defective equipment	➢ Ensure tools are in good working condition. ➢ Grinders must be fitted with guards before using. ➢ Use only approved proper tools. ➢ Always wear eye protection when using air tools. ➢ **Do Not** use air tools for any other purpose other than what it is intended for. ➢ Frequently check air hoses and clamps ➢ **Do Not** weld or use torches near chemicals, compressed air or flammable liquids. ➢ Use appropriate eye protection with grinders, hammering pins, cutting cable and operating cutting torches.
15. Using Compressed Air to Blow off Machines	Foreign objects in eyes Puncture wounds from objects in the airline	➢ Wear eye protection and gloves when using compressed air to blow down. ➢ **Do Not** use compressed air to blow off clothing. ➢ After use, hang up hose.
16. Fueling Machines		➢ Shut off equipment when refueling. ➢ **Do Not** fuel or service machine, or carry out avoidable repairs, near streams, lakes or water bodies. ➢ **NO** Smoking near or around fueling area. ➢ Know emergency spill procedures. ➢ Wear leather gloves.
17. Safety		➢ Keep flammable materials away from areas where welding is being performed. ➢ Know and recognize worksite hazards. ➢ Ensure all the appropriate personal protective equipment is worn at all times.
18. Chemical Clean-Up	Skin and eye irritation	➢ Wear proper personal protective equipment. ➢ Follow written chemical procedures. **See WHMIS Section 5.1 Page 72.**
19. Housekeeping	Personal safety and safety of co-workers, tripping & falling	➢ Keep the machines and work areas neat and clean at all times.

7.7.7 WELDER SAFE WORK PROCEDURES

Personal Protective Equipment:
1. High Visibility Safety Headgear
2. Hearing Protection
3. Gloves (as required)
4. Safety Footwear
5. Safety Eye Protection (as required)
6. High Visibility Vest (as required)

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
1. Equipment Usage		➢ Only persons authorized by Supervisor are to operate any machines.
2. Prepare for Start-Up	Workers exposed to moving equipment	➢ Workers exposed to moving equipment. ➢ Ensure workers are aware of your presence. ➢ Check for possible hazards. ➢ Understand all safety precautions and warnings pertaining to the machine.
	Personal safety	➢ Ensure that the proper fire extinguisher, which has been inspected as recommended, is close by.
	Workers in danger area	➢ Ensure no one is in the area of welding.
3. Operation **Clean all areas as instructed by your Supervisor**		➢ Check to make sure there is adequate ventilation. ➢ Ensure that there is adequate means of access and egress. ➢ Inspect all slings before you use them. ➢ Make sure co-workers know of your presence in a specific area. ➢ **Do Not** enter an area when equipment is running. ➢ Replace all safety guards that have been removed.
4. Working Near Operating Equipment		➢ Exercise extreme caution when working in the proximity to equipment. ➢ Be alert to heavy equipment moving back and forth. ➢ Stay within the operator's vision. ➢ **NEVER** turn your back on oncoming traffic. ➢ **Do Not** enter equipment hazards zone. ➢ Never take for granted that the operator can see you.
5. Welding		➢ **Do Not** leave the welding site unattended. ➢ Ensure eye protection is used and other workers are not exposed. ➢ Ensure that there is adequate shielding to protect other workers from exposure to the welding arc in the shop and/or in the field.
	Welding flash to yourself and co-workers	➢ **Do Not** breathe in welding fumes. ➢ No cutting or welding shall be done in such a way as to endanger yourself or other workers.
	Injury to co-workers	➢ When welding in confined spaces effective respiratory equipment shall be made available and used.

7.7.7 WELDER SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
6. Cylinders		➢ Cylinder valves shall be closed when equipment is not in use. ➢ Compressed gas cylinders will not be hoisted by slings or magnets, dropped or subjected to impact. ➢ Cylinders will be kept upright, and shall be secured against falling during storage, transportation or use. ➢ Cylinders shall not be handled by means or regulators or used as rollers or work supports. ➢ Acetylene cylinders, which have been stored or transported in a horizontal attitude, shall be placed in a vertical position for at least one hour before use. ➢ Full and empty cylinders shall be kept separated and identified. ➢ Oxygen or acetylene cylinders shall not be used as a prop while cutting nor shall an arc be struck on any cylinder. ➢ At the end of operation ensure that the tanks are turned off and lines are drained.
7. Working Around any types of Fumes and Airborne Toxins		➢ Ensure the area is or can be well ventilated. ➢ Appropriate respiratory equipment must be used.
8. Fire Hazards and Safety		➢ Keep flammable materials away from areas where the welding is being performed. ➢ **NEVER** weld a tank, pipeline or portable container without making absolutely sure that it is free of any explosive or toxic vapors. ➢ Burning or welding equipment starts most industrial fires. ➢ Chemical or other approved extinguishers must be checked before starting work and the extinguisher must be at the point of work at all times. ➢ Know and recognize worksite hazards. ➢ Ensure all the appropriate personal protective equipment is worn at all times.
9. Fire Extinguishers		➢ Extreme caution shall be taken to prevent fires in dry areas. ➢ Fire extinguisher must be on site while working.
10. Condition and Location Of Tools	Personal injury from defective equipment	➢ Ensure tools are in good working condition. ➢ Check equipment at frequent and regular intervals for defects, particularly for defective cable when working in wet areas. ➢ Grinders must be fitted with guards before using.

7.7.7 WELDER SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
11. Using Tools		➢ Use only approved proper tools. ➢ Always wear eye protection when using air tools. ➢ **Do Not** use air tools for any other purpose other than what it is intended for. ➢ Frequently check air hoses and clamps. ➢ Do NOT weld or use torches near chemicals, compressed air or flammable liquids
12. Using Compressed Air to Blow off Machines	Foreign objects in eyes Puncture wounds from objects in the airline	➢ Wear eye protection and gloves when using compressed air to blow down. ➢ **Do Not** use compressed air to blow off clothing. ➢ After use, hang up hose.
13. Chemical Clean-Up	Skin and eye irritation	➢ Wear proper personal protective equipment. ➢ Follow written chemical procedures. **See WHMIS Section 5.1 Page 72.**
14. Lifting	Pulled muscles or back strain	➢ Follow proper lifting procedures, exercise caution and get help when needed. ➢ Work on solid ground when lifting equipment. ➢ Get help before lifting or moving heavy objects.
15. Access and Egress	**Do Not** jump! – personal safety Slips and falls	➢ Use proper means of dismounting equipment. ➢ Use caution when entering or leaving the unit, use the provided steps and handholds. ➢ Use the Three Point contact method for entering and exiting equipment.
16. Working Around Equipment	Slipping when entering or leaving	➢ Make sure the footholds and floors are clean of grease, oil and other debris.
17. Housekeeping	Personal safety and safety of co-workers, tripping and falling	➢ Keep are of movement clean at all times.

7.7.8 CLEAN UP SAFE WORK PROCEDURES

Personal Protective Equipment:
1. High Visibility Safety Headgear
2. Hearing Protection
3. Gloves (as required)
4. Safety Footwear
5. Safety Eye Protection (as required)
6. High Visibility Vest (as required)

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
1. Equipment Usage	Unqualified workers could cause damage to equipment and expose other workers to hazards	➢ Employer must ensure worker is qualified to operate to equipment any piece of equipment. ➢ Only persons authorized by a Supervisor are to operate any machines. ➢ **Do Not** start or stop any equipment unless you are fully conversant with its operation.
2. Access and Egress	**Do Not** jump! – personal safety Slips and falls	Employee must: ➢ Use proper means of dismounting equipment. ➢ Use caution when entering or leaving the unit, use the provided steps and handholds. ➢ Use the Three Point contact method for entering and exiting equipment.
3. Working Around Equipment	Workers in danger area Working in proximity to others Working around supported equipment and under suspended loads	Worker must: ➢ Be alert to heavy equipment moving back and forth. ➢ Stay within the operator's vision. ➢ **NEVER** turn your back on oncoming traffic. ➢ Never take for granted that you can be seen by the driver. ➢ Make sure co-workers know of your presence in a specific area. When working around equipment under repair: ➢ Ensure blocking is stable. ➢ **Do Not** walk under suspended loads.
4. Lifting	Pulled muscles or back strain	➢ Follow proper lifting procedures, exercise caution and get help when needed. ➢ Work on solid ground when lifting equipment. ➢ Get help before lifting or moving heavy objects.
5. Condition and Location of Tools	Personal injury from defective equipment	➢ Ensure tools are in good working condition. ➢ Check equipment at frequent and regular intervals for defects, particularly for defective cable when working in wet areas. ➢ Grinders must be fitted with guards before using.
6. Using Compresses Air to Blow off Machines	Foreign objects in eyes Puncture wounds from objects in the airline	➢ Wear eye protection and gloves when using compressed air to blow down. ➢ **Do Not** use compressed air to blow off clothing. ➢ After use, hang up hose.

7.7.8 CLEAN UP SAFE WORK PROCEDURES

JOB STEPS	CONCERNS/HAZARDS	PROPER PROCEDURE
7. Fueling Machines	Fire, explosion, burns to body	➢ Shut off equipment when refueling. ➢ **Do Not** fuel or service machine, or carry out avoidable repairs, near streams, lakes or water bodies. ➢ **NO** Smoking near or around fueling area. ➢ Know emergency spill procedures. ➢ Wear leather gloves.
8. Chemical Clean-Up	Skin and eye irritation Spills	➢ Wear proper personal protective equipment. ➢ Follow written chemical procedures. **See WHMIS Section 5.1 Page 72.** ➢ Know emergency spill procedures.
9. Safety		➢ Keep flammable materials away from areas where welding is being performed. ➢ Know and recognize worksite hazards. ➢ Ensure all the appropriate personal protective equipment is worn at all times.
10. Housekeeping	Personal safety and safety of co-workers, tripping and falling	➢ Know all necessary clean-up areas. Obtain a list of main clean-up areas from your Supervisor. ➢ Clean all areas as instructed by your Supervisor. ➢ Keep area of movement clean at all times.

7.8 BLOW-DOWN LOGGING OPERATIONS

7.8.1 BUNCHER AND GRAPPLE SKIDDER OPERATORS

The operator must complete a quick visual check for leaks, cracks, undercarriage irregularities etc. prior to starting machine.

The operator must check the fluid levels prior to starting the machine.

Buncher first bucks the blow-down and tries to arrange the drag for the skidder.

Buncher then falls the standing timber.

The skidder removes the drag.

Whenever the units are in close proximity, there must be either radio control or visual contact before work commences.

7.8.2 HAND-BUCKER / FALLER AND LINE SKIDDER

Hand-bucker/faller goes in and bucks off what he feels he can buck safely. This is a judgment call - when in doubt - LEAVE IT!! Fall the standing timber concurrently if they are not bound up.

Hand-bucker/Faller moves along a face in this manner.

Line Skidder operates at least two tree lengths away.

Once the face is skidded, the Hand-bucker/Faller returns to buck and fall another strip. The skidding should have eased some of the tension. Again, if in doubt - LEAVE IT!!

In the event of falling difficulties, bound saw, hung-up trees, blow-down jackpot, etc., the Hand-bucker/Faller shall notify the skidder operator and foreman. The problem should be assessed and a solution implemented.

7.9 ROAD & ROAD MAINTENANCE SOP

Contractor Supervisor and equipment operator review permit requirements including Road Permit, Cutting Permit, Logging Plan Maps, ribboning convention, with emphasis on any special clauses.

7.9.1 BUILDING ROADS

You cannot build a road in a Reserve Zone unless approved by the Forest Service and BC Environment.

You cannot build a road turnout in a Riparian Management Area unless approved by the Forest Service and BC Environment.

When you install culverts on Fish Bearing Streams, you must prevent the fill material from entering the streams.

Ensure Bridge Installation and Stream Crossing Checklists are used.

7.9.2 LOGGING RIGHT-OF-WAYS

Road Construction/Contractor Supervisors must ensure that all operations are conducted so as to maintain natural drainage patterns BEFORE, DURING and AFTER completion of operations.

Falling must be directed away from stream crossings and riparian zones.

The Company does NOT PERMIT crossing of fish bearing streams prior to the issuing of written instructions.

Skid bridges must be utilized at all stream crossings or as designated by the Area or Road Construction Supervisor.

Falling:

- fallers, buncher operators and contractor Supervisor must walk and/or review work area with Supervisor before they start work in a new area which should include centerlines, landings, streams and riparian management areas, prior to commencement of operations
- All trees within the right-of-way must be felled. Dangerous trees within reach of road surface and landings shall be felled concurrent with operations
- variances of right-of-way width must be approved by area Supervisor
- right-of-way falling should occur during daylight hours

7.9.3 RIGHT-OF-WAY LANDINGS

Size and location of landings are specified in the approved plan.

Ideal landing shape is rectangular with tapered ends.

Turnouts should be located at landing locations where feasible.

All wood will be skidded to and decked within the landing area and should not extend into standing timber.

Licensee personnel will mark approximate landing locations. No landings to be constructed within 40 meters of a watercourse.

Landings must not be stripped unless authorized by a Licensee Supervisor.

Decks must not impede road construction operations or drainage patterns.

Landing piling should be concurrent with load out or as discussed with Area Supervisor.

Ditches must extend along the entire length of the landing adjacent to the road.

7.9.4 ROAD CONSTRUCTION/LOGGING GENERAL INSPECTIONS

Construct roads, bridges, and install culverts, primarily during daylight hours or under adequate artificial lighting.

Each operation or block will be inspected for compliance with government regulations/policies, Company policies, plans and prescriptions. An inspection sheet will be filled out.

Ensure you obtain a copy of the pre-work notes, which must be kept in the machine at all times.

Ensure you fully understand the map information and operational requirements before starting work.

Onsite review and walk locations are required to ensure familiarity with job requirements.

Sign pre-work sheet acknowledging discussion and understanding.

Fuel and service equipment away from all water bodies and in designated areas only.

Do not alter location of stream or water course.

When building bridges, use equipment suitable for lifting logs or other supports.

Do not drop debris in river, streams, creeks, lakes or wetlands.

Know Emergency Spill Procedures.

Review ribboning convention.

Have and review logging plan map identifying sensitive areas.

Observe all conditions of any special management area.

Confine all operations to within approved area only.

Position slash and overburden according to Road Permit, Cutting Permit and Logging Plan Map.

Review and comply with all requirements of Riparian Management Area as identified in the Silviculture Prescription or the Logging Plan Map.

Monitor progress on a regular basis with respect to soil, weather conditions and shut down as required.

Maintain natural surface drainage patterns during each phase of construction.

Make sure that cut and fill banks are properly sloped, rock scaled and compacted as required.

Control sub-surface drainage consistent with natural drainage patterns.

Cease operations in the immediate vicinity and report to Supervisor when you come upon an unidentified site or resource feature.

Minimize damage to standing timber and trees that must be left standing, as per the operational requirements report.

Minimize site disturbance at all times.

7.9.5 ROAD CONSTRUCTION-SUBGRADE CONSTRUCTION

Sub-grade construction specifications are set forth (for each section) in the Road or Cutting Permit.

Temporary or permanent drainage systems must be built concurrently with sub grade construction.

The width of the sub grade will be as specified in the Road Permit.

The sub grade shall be constructed with mineral soil. One or more of the following methods; scattering, piling and burning, or burying will dispose of slash and debris. The method to be used will be decided by a Licensee Supervisor.

Slash and debris must not be disposed of into a watercourse.

Debris piles or berms must be breached as necessary to allow drainage.

The grade should be kept crowned during construction to prevent the accumulation of surface water.

For each approved road crossing of a watercourse, limit the equipment crossing location to the area that will be occupied by the sub grade.

Turnouts should be intervisible or a minimum of 3 per kilometer. Turnouts are to be built on the empty side of the road.

Roads must be constructed in conformance with the approved layout and design.

Skid bridges must be utilized at all stream crossings or as designated by the Area Supervisor or his designate.

Grass seeding of the right of way will occur by the first spring season following construction.

Make sure ditches are constructed to adequate depths, are free of debris and have proper ditch blocks.

Culverts should not extend more than 50 cm past sub grade on inlet side.

Culverts should follow contour of slope up to 25%.

Culvert pond at inlet to be no more than 25 cm deep.

Perched culverts should have a 30 cm plus riprap spillway, fabric apron or flumes to prevent erosion.

Culverts over 90 cm shall be installed with a minimum bedding below culvert base of 30 cm of inert durable sand, gravel and or crushed rock particles. The bedding shall be prepared in such a manner as to prevent unequal settlement along length of culvert. The backfill for the culvert should be of the same material.

Use techniques to control siltation.

The culvert should have at least 30 cm fill over the top, or ½ the diameter of the culvert, whichever is greater.

Place enough suitable fill material that will not erode.

Conduct operations to: minimize siltation into water bodies; protect fish and fish habitats; and maintain natural drainage patterns.

Creeks and Streams:

- culverts must maintain natural course of streams whether seasonal or continuous
- before culverts installation, creeks must be assessed for fisheries potential
- culverts should maintain natural watercourse
- all culverts greater than 100 cm and/or culverts in fish bearing streams require written procedures for installation and operating time frames prepared by Company Supervisor responsible for engineering or road construction
- culverts should provide for 100 year flood
- all culverts > 100 cm in diameter must be installed with excavator and fill must be compacted
- build trails only in the locations shown on the Logging Plan Map
- during bladed trail construction, ensure that movement of soil and depth of cut are kept to a minimum, and are within any limits set out in the Logging Plan Map
- cross wet areas, sensitive areas, and creeks at approved designated crossings only
- when a bladed trail has to cross a creek, ensure the skid bridge construction SOP is followed

- ensure strippings and soil are not deposited below the high water mark of a creek or water body
- ensure that no materials are removed from the area that could destabilize a stream bank
- minimize site disturbance at all times

7.9.6 ROAD MAINTENANCE

Supervisor and equipment operator review permit requirements including; deactivation plan and maps, field marking convention, with emphasis on any special clauses.

Onsite review and/or walk locations as required to ensure familiarity with job requirements.

Fuel and service equipment away from all water bodies and in designated areas only.

Know Emergency Spill Procedures.

Have and review map identifying sensitive areas.

Observe all conditions of any special management area.

Confine all operations to within approved area only.

Monitor progress on regular basis with respect to soil, weather conditions and shut down as required.

Maintain natural surface drainage patterns during each phase of construction.

Ensure graded material is not deposited or positioned to enter into a watercourse.

Conduct operations to: minimize siltation into water bodies; maintain natural drainage patterns; reduce the potential for slumps, slides and rock fall; and control road surface runoff.

Keep ditches and culverts free of debris.

Control subsurface drainage consistent with natural drainage patterns.

Remove industrial waste and garbage concurrent with operations.

Do not push mud outside of road width approved in Operational Documents.

7.9.7 ROAD DEACTIVATION

Contractor Supervisor and equipment operator review permit requirements including deactivation plan and maps, field marking convention, with emphasis on any special clauses.

Onsite review and/or walk locations as required to ensure familiarity with job requirements.

Sign pre-work sheet acknowledging discussion and understanding.

Do not begin deactivating any new ground without approval and discussions with the Supervisor.

Ensure that no materials are removed from the area that could destabilize a stream bank.

Ensure that no excavated materials are piled in such a way as to become unstable.

Ensure that waterbars and cross-ditches are left clear and functional with adequate protection, depth and size.

Fuel and service equipment away from all water bodies and in designated areas only.

Know emergency spill procedures.

Review field marking convention.

Have and review map identifying sensitive areas.

Observe all conditions of any special management area.

Confine all operations to within approved area only.

Review and comply with all requirements of riparian management area as identified in the silviculture prescription, road permit, cutting permit, or the Logging Plan Map.

Monitor progress on regular basis with respect to soil and weather conditions and shut down as required.

Maintain natural surface drainage patterns during each phase of construction.

Control subsurface drainage consistent with natural drainage patterns.

Remove industrial waste and garbage concurrent with operations.

Ensure all materials used in designated crossing are removed from water courses, and merchantable timber is utilized.

Contain all waste daily and remove it from the work site regularly.

7.9.8 CRAWLER UNIT SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact and hazards	1. Contractor must ensure that the operators: ➢ review permit requirements, ribboning convention, with emphasis on any special clauses ➢ sign check-off sheet acknowledging discussion and understanding ➢ have and review map identifying sensitive areas and observe all conditions of any Special management Areas ➢ know where burden and waste material must be placed ➢ utilization standards
2. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	**See SOP 6.4 & 6.8** 1. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes ➢ Check running gear, tracks, etc. ➢ Hydraulic System - hoses, oil levels, leaks ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 2. Always use three-point contact when entering, leaving and inspecting equipment. 3. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine.
4. Operating Process-Safety	1. Rollover hazards - steep ground	1. The operator must: ➢ wear seatbelts when operating the machine ➢ know where edge of roadway is at all times ➢ wear seatbelts when operating the machine

7.9.8 CRAWLER UNIT SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Operating Process-Safety (cont)	2. Pushing or clearing ground	2. The operator must: ➢ ensure workers are in the clear before moving ➢ use WSBC approved hand signals or other appropriate means for communication ➢ never allow anyone to ride in or on the unit, it is not designed for carrying passengers ➢ before leaving unit, lower the blade to the ground, set the parking brake and lock gear selector **Refer to OHSR Part 16; Section 16.36** ➢ watch for limbs, jill pokes that may slip past blade into operator's cab ➢ walk right-of-way and check ground, slope, etc., before starting operation ➢ build stable fills on side slopes and test carefully before proceeding to work on them ➢ build grade wide enough for machine to work on ➢ flatten all jill pokes or hazards as you work ➢ remove danger tree or damaged tree as you get to them ➢ work carefully around ditches and side cuts ➢ use stumps, logs or slash to create crossings for soft ground ➢ use caution on rock, frozen or steep ground
	3. Working in proximity to others	3. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control
5. Operating Process-Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ monitor progress on a regular basis with respect to soil and weather conditions and shut down as required ➢ cease operations in the immediate vicinity and report to Supervisor when you come upon an unidentified site or resource feature ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift ➢ contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.9.9 GRADER SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact and hazards	1. Contractor must ensure that the operators: ➢ review permit requirements, ribboning convention, with emphasis on any special clauses ➢ have and review map identifying sensitive areas and observe all conditions of any Special management Areas ➢ sign check-off sheet acknowledging discussion and understanding ➢ utilization standards ➢ know where burden and waste material must be placed
2. Equipment Inspection, prepare for startup	**1. Check unit's status:** ➢ for faulty equipment ➢ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	**See SOP 6.4 & 6.8** 1. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes ➢ Check running gear, tracks, etc. ➢ Hydraulic System - hoses, oil levels, leaks ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 2. Always use three-point contact when entering, leaving and inspecting equipment. 3. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine.
4. Operating Process-Safety	1. Rollover hazards - steep ground	1. The operator must: ➢ wear seatbelts when operating the machine ➢ know where edge of roadway is at all times ➢ watch for limbs, jill-pokes that may slip past blade into operator's cab ➢ use caution on rock, frozen or steep ground

7.9.9 GRADER SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Operating Process-Safety (cont)	2. Pushing or clearing ground	2. The operator must: ➢ side-shift blade to reach side of road; keep blade inside wheels when roading unit. Keep grader in centre of road on fill, shifting the blade sideways to edge of the road in the event the blade kicks the unit sideways ➢ grade short stretches of road completely; keep turnouts graded and free of oversized rocks ➢ before leaving unit, lower the blade to the ground, set the parking brake and lock gear selector. **Refer to OHSR Part 16; Section 16.36**
	3. Working in proximity to others	3. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ watch all traffic, especially when backing onto roads ➢ use caution when approaching active logging areas
5. Operating Process-Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ monitor progress on a regular basis with respect to soil and weather conditions and shut down as required ➢ cease operations in the immediate vicinity and report to Supervisor when you come upon an unidentified site or resource feature ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift ➢ contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.9.10 LOADER SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Equipment Inspection, prepare for startup	Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts Elevated parts Slipping and tripping hazards	**See SOP 6.4 & 6.8** 1. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes ➢ Check running gear, tracks, etc. ➢ Hydraulic System - hoses, oil levels, leaks ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant ➢ keep tire pressures at manufacturers pressure and monitor
2. Equipment startup	Workers in danger area Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 2. Always use three-point contact when entering, leaving and inspecting equipment. 3. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine. 4. Keep boom, bucket or grapple as low as possible when traveling
3. Pre-work	Aware of environmental impact and hazards	1. Contractor must ensure that the operators: ➢ have and review map identifying sensitive areas and observe all conditions of any Special Management Areas ➢ sign check-off sheet acknowledging discussion and understanding
4. Operating Process-Safety	1. Rollover hazards - steep ground	1. The operator must: ➢ wear seatbelts when operating the machine ➢ watch for limbs, jill-pokes that may slip past blade into operator's cab ➢ use caution on rock, frozen or steep ground ➢ operate on stable ground

7.9.10 LOADER SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Operating Process-Safety	2. Working in pit	2. The operator must: ➢ do Not push trees, or roll stumps, logs or rocks into standing timber ➢ not let truckers out on the blind side of truck when being loaded ➢ ensure pit face Does Not exceed reach of loader - bench if necessary ➢ do not undermine banks ➢ keep banks tapered and request help when they become vertical and too high ➢ keep pit surface as level as possible ➢ keep work area as flat as possible ➢ Do Not travel with bucket high - work with bucket as low as possible ➢ Do not operate when people are walking in the pit ➢ Before leaving unit, lower the blade to the ground, set the parking brake and lock gear selector. Refer to OHSR Part 16; Section 16.36 ➢ Remove large rocks or debris from work area
	3. Loading trucks	3. Do not load truck when: ➢ Driver is working on truck ➢ Driver is walking around pit ➢ Truck is not in a good position ➢ 4. Load trucks as evenly as possible
	4. Working in proximity to others	1. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ know where all personnel are in the pit ➢ do not allow anyone into the articulating area of the machine unless it is shut off

7.9.10 LOADER SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
5. Loading Process-Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ monitor progress on a regular basis with respect to soil and weather conditions and shut down as required ➢ inspect culverts for environmental or stability concern; mark washouts/road holes; watch for protruding rock and other debris ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift ➢ contain all waste daily and remove from the work site regularly 2. Fuel and service unit away from all water bodies and in designated areas only

7.9.11 GRAVEL TRUCK SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear
5. Eye Protection (as required)
6. High Visibility Apparel
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts	1. Operator must ensure pre-trip book is filled out.
	2. Slipping and tripping hazards	1. Be aware of hazardous areas discussed in pre-work and follow discussed procedures
2. Equipment startup	1. Workers in danger area	**See SOP 6.4 & 6.8** 1. Ensure no workers in equipment operating area. 2. Always use three-point contact when entering, leaving and inspecting equipment. 3. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving unit.
	2. Slipping and tripping hazards	1. Keep fingers away from jammed tailgate, use bar or lever 2. Never work under raised box without first blocking the box securely.
3. Process- Safety Loading/Unloading	1. Stability of unit, hazards around truck while loading	1. Ensure: ➢ the ground is solid and level ➢ there is room for maneuvering ➢ loader operator is aware of where the operator is at all times - effective communication ➢ when approaching other equipment, get clearance from the operator before passing ➢ do not back under loader or leave loader until signaled ➢ stay in truck while being loaded ➢ do not walk around pit while equipment is operating ➢ do not work on truck while being loaded

7.9.11 GRAVEL TRUCK SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
3. Process- Safety (cont)		2. The operator: ➢ shall wear provided seatbelts ➢ move equipment slowly and under control at all times ➢ use headlights at all times ➢ drive appropriately to all road conditions ➢ Follow rule of road and radio calling procedures ➢ Do not permit unnecessary passengers. ➢ Trainees and Supervisors permitted ➢ Sound horn when backing up
Working in proximity loading/unloading	2. Hazard around equipment, unit stability	1. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ operators must ensure that all workers are clear of the hazardous area before loading and unloading ➢ follow signals from spread cat or grader operator ➢ do not move the truck on rough or soft ground with the box raised ➢ ensure wheels are on stable ground before lifting box
Hauling	3. Load stability, road conditions	1. The operator: ➢ shall be aware of load characteristics: centre of gravity, cornering concerns, clearances and braking concerns ➢ shall be aware of road traffic and conditions
4. Process- Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift 2. The operator must: ➢ contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.9.12 PACKER SAFE WORK PROCEDURE

Personal Protective Equipment: 1. High Visibility Safety Headgear 2. Hearing Protection (as required) 3. Gloves (as required) 4. Safety Footwear 5. Eye Protection (as required) 6. High Visibility Apparel 7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	**See SOP 6.4 & 6.8** 1. Notify foreman when entering or leaving worksite 2. Operator must ensure the following checks are performed: ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes ➢ Check running gear, tracks, etc. ➢ Hydraulic System - hoses, oil levels, leaks ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant ➢ Check tire pressure on a regular basis
2. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 2. Always use three-point contact when entering, leaving and inspecting equipment. 3. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine.
3. Pre-work	1. Aware of environmental impact and hazards	1. Contractor must ensure that the operators: ➢ have and review map identifying sensitive areas and observe all conditions of any Special Management Areas ➢ sign check-off sheet acknowledging discussion and understanding
4. Operating Process-Safety	1. Rollover hazards	1. The operator must: ➢ wear seatbelts when operating the machine ➢ know where edge of roadway is at all times ➢ watch for limbs, jill-pokes that may slip past unit into operator's area ➢ use caution on soft or steep ground 2. The operator must: ➢ Approach edges of fresh built roads carefully as they may be soft. ➢ Do not turn sharply on uneven ground ➢ Be aware that the machine can slide sideways when vibrator is on. (especially on sloped ground) ➢ When packing ditches go straight in and straight out ➢ Before leaving unit, set the parking brake and hydraulic lock. **Refer to OHSR Part 16; Section 16.36** ➢ wear dust mask and eye protection when working in dusty conditions ➢ Always look behind you before backing up.

7.9.12 PACKER SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Operating Process-Safety (cont)	3. Working in proximity to others	3. When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ watch all traffic, especially when backing onto roads ➢ use caution when approaching active logging areas
5. Operating Process-Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ monitor progress on a regular basis with respect to soil and weather conditions and shut down as required ➢ cease operations in the immediate vicinity and report to Supervisor when you come upon an unidentified site or resource feature ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift ➢ contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.9.13 FORKLIFT OPERATOR SAFE WORK PROCEDURE

Personal Protective Equipment:

1. Hart Hat
2. Hearing Protection
3. Gloves
4. Safety Footwear (when required)
5. Eye Protection (as required)
6. High Visibility Apparel

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. WHMIS	Exposure to hazardous materials can contribute to serious health effects	➢ Refer to MSDS and training
2. Check Forklift Only authorized personnel are to operate machine. Driver must be familiar with particular type of machine.	Injury to operator, pedestrians or co-workers, scalds, burns Eliminate downtime Mechanical deficiencies	➢ Check machine and complete forklift checklist prior to starting machine. To be checked at the start and end of each shift. ➢ Check fuel, oil and water levels. ➢ Check windows, lights, tires, etc. on machine. ➢ Check brakes and hydraulics. ➢ Check if forks work properly — tilt up, down, forward and backward. Shift to side also.
3. Operation	Injury to operator, pedestrians or co-workers Machine boom collapse Crush injury Equipment damage, personal injury	➢ Start machine by turning master key on. ➢ Check gauges to ensure that they read NORMAL. ➢ Seat belts must be worn when operating forklifts on unpaved portions of the yard. ➢ Operate machine safely and courteously with respect to fellow workers, pedestrians and other vehicles. ➢ Be alert to surrounding conditions and operate at a safe speed. ➢ Always carry forks at lowest possible position, both empty and loaded. ➢ Never carry a rider unless for training or maintenance inspection. ➢ **DO NOT** enter under an elevated load unless securely blocked. ➢ Never place arms or legs between frame and mast. ➢ **DO NOT** make sudden turns, or turns at high speed. The high centre of gravity can cause the machine to upset. ➢ If machine overheats, shut down machine and notify the Supervisor Immediately. ➢ If overheating, do not move machine until mechanic has authorized you to do so. ➢ When leaving Forklift, to exit by using 3 point contact. ➢ Develop good communication with co-workers. ➢ Always look behind before backing up.
4. Load Pick Up	Injury to workers, falling loads	➢ Sound horn when approaching load where people are working. ➢ Approach load with forks at proper level. ➢ Have load centered on forks. ➢ Use care and caution around workers.

7.9.13 FORKLIFT OPERATOR SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
5. Elevated Load	Tipping of machine, personal injury to yourself and co-workers	➢ Allow no one to walk under load**. DO NOT** leave elevated load. Drive with extreme care.
6. Servicing Work Areas	Damage to equipment, injury to co-workers	➢ Use extreme caution when placing loads on hoists, dollies, chains, etc. Sound horn to warn workmen.
7. Handling materials	Unstable piles for co-workers and self	➢ Place spacers properly between loads. ➢ Be sure loads are placed in proper rows. ➢ If an accident should occur, do not move machinery or change the accident scene. Contact your Supervisor immediately.
8. Blind Corners	Collision, pedestrian injury	➢ Sound horn (short blasts) to make yourself evident to anyone in the area. Approach with care and caution.
9. Fuelling Machine	Fire, explosion, frost burns to body Spills	**Before Changing Propane Tank:** ➢ **Shut engine off before fuelling.** ➢ No smoking near or around propane tank. ➢ Wear leather gloves. ➢ Keep fittings free of dust and tightened securely. **Changing Propane Tank** Disconnect filler hose from tank and place on propane tank frame. Check for leaks.
10. Shut-Down	Inadvertent movement of equipment, slipping, falling and tripping	➢ Lower boom to the ground. ➢ Apply parking brakes. ➢ Shut off engine at breaks, end of shift, or when leaving machine for an extended period of time. ➢ All operators are responsible for cleanliness of their cabs, i.e.: garbage, dust, sunflower seeds, etc.
11. Parking	Run-away machine causing damage or injury to co-workers	➢ DO NOT block alleyways, doorways or fire equipment. Park in designated areas only. Lower forks, shut off motor, set brake. (exception in the winter time). ➢ Turn engine off at end of shift or when leaving machine for an extended period of time.
12. Blowing Down Forklift When using Compressed Air - cleaning off machine with air hose.	Debris in eyes, overheating, fire hazard. Foreign objects in eyes, puncture wounds from object in airline	➢ Must use goggles provided. Must be done within first hour of work. ➢ Wear eye protection and gloves when using compressed air to blow down. ➢ **DO NOT** use compressed air to blow off clothing.

7.9.13 FORKLIFT OPERATOR SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
13. Footwear	Foot injuries	➢ Steel-toed footwear must be worn at all times. ➢ Safety foot wear must be maintained in a safe condition and worn properly i.e.: laced up correctly.
14. Hard Hats	Serious head injuries	➢ Hard hats must be worn at all times.
15. Hearing protection	Hearing loss	➢ Hearing protection must be worn when required.
16. Torn / No gloves	Slivers, cuts	➢ Wear proper gloves when necessary.
17. Lifting	Pulled muscles or back strain	Follow proper lifting procedure, exercise caution and get help when needed.

7.9.14 EXCAVATOR SAFE WORK PROCEDURE

Personal Protective Equipment: 1. High Visibility Safety Headgear 2. Hearing Protection (as required) 3. Gloves (as required) 4. Safety Toed Footwear 5. Eye Protection (as required) 6. High Visibility Vest 7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact	1. Contractor must ensure that the operators: ➢ review permit requirements, ribboning convention, with emphasis on any special clauses ➢ utilization standards ➢ have and review map identifying sensitive areas and observe all conditions of any Special management areas ➢ sign check-off sheet acknowledging discussion and understanding
2. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	1. Operator must ensure the following checks are performed: ➢ Hydraulic System - hoses, oil levels, leaks ➢ Air Systems -drains separator, dust bowl ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant ➢ Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 1. Always use three-point contact when entering, leaving and inspecting equipment. 2. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine.
4. Process - Safety	1. Excavating and moving material	1. The operator must: ➢ ensure and truck drivers are in the clear before moving ➢ use WSBC approved hand signals or other appropriate means for communication ➢ never allow anyone to ride in or on the unit, it is not designed for carrying passengers ➢ avoid positioning the unit too close to the truck being loaded as it restricts the movement of the excavator 2. Ditches & Culverts: ➢ ensure that there is sufficient work area for all activities ➢ check counterweight clearance before operating (minimum 3 feet) ➢ ensure safeguards are implemented when excavations are in excess of 1.2m (4ft) **Refer to OHSR Part 20; Sections 20.78 - 20.95; Table 20-1; Figure 20-1, 20-2, 20-3** ➢ watch for dangerous trees, jillpokes, loose logs and material

7.9.14 EXCAVATOR SAFE WORK PROCEDURE		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Process - Safety	2. Working with truckers and other workers 3. Hoe chucking/decking	1.When working in proximity to others: ➢ persons wishing to approach an operating machine must receive a visual sign from the operator before approaching ➢ when working adjacent to traveled areas there must be a positive means of traffic control ➢ operators must ensure that all workers are clear of the hazardous area before operating 2. The operator must: ➢ before leaving unit, lower the boom to the ground, disengage hydraulic system Refer to OHSR Part 16; Section 16.36 ➢ The operator must: ➢ never try to lift or carry a load that is too heavy for that particular unit ➢ ensure the loader is positioned on relatively flat ground before picking up logs ➢ when picking logs up with boom fully extended, keep the load low until brought in towards unit; this will maintain stability ➢ not deck wood outside designated landing or roadside areas; no decking outside of block
5. Process-Environmental	1. Damage to soil, drainage and other environmental impact	1. The operator must: ➢ monitor progress on a regular basis with respect to soil and weather conditions and shut down as required ➢ cease operations in the immediate vicinity and report to Supervisor when you come upon an unidentified site or resource feature ➢ conduct operations to: minimize siltation into water bodies; site disturbance; natural drainage patterns; damage to leave tree, culverts, ditches, etc. ➢ inspect equipment, hoses, etc., for wear and tear that might cause spills, leaks or ground disturbance. Inspections shall occur at least twice per shift ➢ contain all waste daily and remove from the work site regularly ➢ fuel and service unit away from all water bodies and in designated areas only

7.9.15 CRANE / PILE DRIVER SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Toed Footwear
5. Eye Protection (as required)
6. High Visibility Vest
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-Work	1. Aware of environmental impact	Contractor must ensure that the operations: ➢ review permit requirements, ribboning convention, with emphasis on any special clauses ➢ utilization standards ➢ have and review map identifying sensitive areas and observe all conditions of any Special Management Areas ➢ sign check-off sheet acknowledging discussion and understanding ➢
2. **Equipment Inspection, prepare for startup**	1. Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	Operator must ensure the following checks are performed: ➢ Hydraulic System - hoses, oil levels, leaks ➢ Air Systems -drains separator, dust bowl ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant Safety Checks - seatbelt, guarding, escape hatch, spill kit, fire extinguisher, first aid kit, lights, brakes
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	Ensure no workers in equipment operating area. Always use three-point contact when entering, leaving and inspecting equipment. Make sure the machine footholds and floors are clean of grease, oil, bark and other debris to prevent slipping when entering or leaving machine.

7.10 STREAM AND RIVER CROSSINGS

7.10.1 DRAINAGE STRUCTURES

Prior to start-up, refer to any site plans or silviculture prescriptions instructions applicable to the site.

Construct bridges, culverts, ditches and fords to maintain natural drainage patterns by intercepting surface and subsurface drainage. Install bridges or culverts at all crossings of established permanent or seasonal watercourses so that they are structurally sound, functional and stable. Place cross drain culverts to prevent ponding of ditch water, and water accumulations from seepages, which may lead to ditch erosion in steeper ground.

Timing of Drainage Construction

If at the time of sub-grade construction, a machine cannot cross a watercourse without negative impact on fish habitat or water quality, the final crossing structure must be installed immediately. Use geotextiles on gravel deck bridges and wooden culverts. Do not install culverts smaller than the size indicated on the plans; apply a minimum fill of 60cm (2 ft.). Control and minimize sedimentation during installation of drainage structures. Observe fisheries window during construction of structures and ensure fish passage.

Gravel Removal

Gravel or fill from Riparian management Areas must not be removed.

Approved Crossings

Minimize machine use in streams, and confine activities to one stream crossing location within the road clearing width.

Maintain Stream Bank and Channel Stability

Prevent channel disturbances while constructing, deactivating or working around bridges and culverts. Maintain the area adjacent to the crossing in its natural state. Leave stable natural material, embedded material and roots systems undisturbed. Obey the 5 metre track-free zone along all stream banks except where the road has been approved to cross the stream.

Ditch Blocks

Install ditch blocks on the down-slope side of the culvert inlets, made impervious and of non-erodible material. Ensure that the top of the ditch block is 15-30 cm below the level of the road surface to prevent road washout if the culvert becomes plugged.

Armored Outflows and Sumps

Culvert outflows must not direct water onto potentially unstable ground, and must be armored with rip-rap where erodible soils are encountered. Catch basins (sumps) must be constructed at culvert inlets where soil erosion is a concern. Do not place unprotected fill below the high water mark of any flood plain. Fills must not interfere with water flows at culvert intakes and outlets, and must be protected where there is risk of erosion.

7.10.2 INSTALLATION OF CULVERTS

1. Bury all metal culverts on fish streams (except for baffled culverts or culverts placed on stream grades <0.5% gradient) such that they lie below the natural streambed a minimum of 300 mm or 20% of the vertical rise for pipe arches, whichever is greatest, and a minimum of 300 mm or 20% of the diameter for round pipes, which ever is greatest, and are placed at or near the natural stream gradient of the stream crossing.

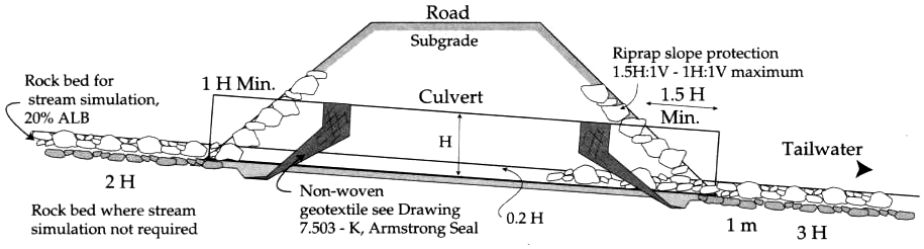


Figure 1: Typical culvert profile with fill slope & bed protection measures

2. Fill the culvert bed to the natural streambed level using clean riprap or angular rock of a size equal or greater than the D90 particle size present in the natural stream channel (Figure 2). Larger, multi-plate culverts may be backfilled using small machinery (such as a Bobcat or backhoe) before the upper plates are secured, provided care is taken to avoid plate damage. It may be acceptable at some sites to allow natural sedimentation to achieve design elevations of the simulated streambed. However, natural sediment transport must be sufficient to achieve the desired bed characteristics and some riprap must be introduced to initiate deposition so that the desired roughness value is achieved for fish passage.
3. Space introduced material 450 - 600 mm apart throughout the bottom of the culvert and size to project a minimum of 200 mm into the stream flow (Figure 2). Also give consideration to the effect of natural re-grade and the possibility of initiating nick-point migration upstream to a point where fish passage is prevented. This can occur in streams that lack sufficient natural sediment loading to fill the culvert.

4. Ensure that the culvert is of sufficient length to avoid side slope material entering the culvert or flow channel.
5. Because alignment is critical for the culvert to function properly, fit the culvert to the natural stream channel. Smaller culverts set at an angle to the channel can cause

bank erosion and develop debris problems. Where the potential for erosion exists, add riprap. With larger pipe sizes some skew can lead to favorable water depths for fish passage by concentrating flow to one side of the culvert, thereby creating greater depth and velocity variability across the bottom profile.

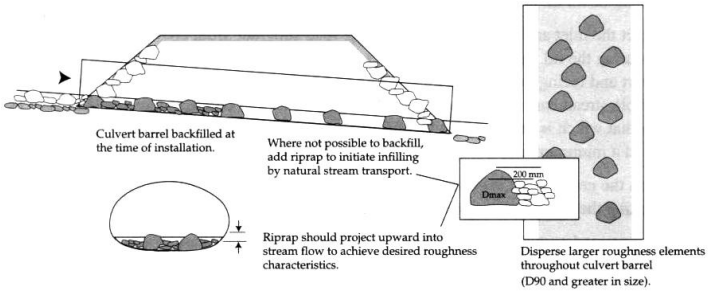

Culvert barrel backfilled at the time of installation.
Where not possible to backfill, add riprap to initiate infilling by natural stream transport.
200 mm
Dmax
Riprap should project upward into stream flow to achieve desired roughness characteristics.
Disperse larger roughness elements throughout culvert barrel (D90 and greater in size).

Figure 2: Embedded culvert showing placement of riprap to simulate streambed

6. Complete the work as fast as possible and conduct all bedding and backfill operations in dry conditions. To work on a dry bed, divert the stream flow during installation.
7. Prepare and grade the culvert bed to conform to the design slope of the installation. This operation is critical and should be checked using an engineer's level. The culvert barrel must be set to the appropriate depth below the streambed and at the same gradient as the stream crossing. The culvert foundation and trench walls must be free of logs, stumps, limbs or rocks that could damage the pipe.
8. Geotextiles can be used to prevent loss of fines and gravel due to seepage from the culvert bed (Figure 1). The fabric at the inlet is intended to block most of the seepage that can occur along the pipe. One seal at the inlet should be adequate for smaller culverts.

   However, with larger installations, seepage from other source areas has been shown to accumulate, and it is recommended that a second geotextile seal near the outlet end, be considered as a precaution against loss of fines due to piping under the culvert. Geotextile Seals should not be necessary where concrete aprons are used.

9. Where high fills are required (over 2xD) or where base strata material is subject to settlement under traffic loads (i.e., soft gravel), camber the bed 0.5% times the length of the culvert at mid-length.

10. Pay attention to bedding and backfilling operations, as they are critical for properly installed culverts. Refer to figure 3 and 4 for specifications pertaining to fill materials and compaction requirements for round pipes and pipe arches. Fill material must be compacted throughout the entire backfill process using a hand-operated compactor and working equally on both sides of the culvert to avoid mis-shaping the culvert. Base and sidewall material should be compacted evenly in maximum lifts of 150 - 250 mm. Care must be taken to ensure the haunches of pipe arch structures are supported with clean, compacted granular material as specified. Do not allow any rocks, limbs or debris to come in contact with the pipe.
11. Provide R/6 or a 300 mm minimum of backfill over the culvert before any traffic crosses over the culvert, to prevent crushing or mis-shaping. In all cases, heavy equipment should not bear down on the culvert until the compacted fill is complete over the top of the crown.
12. Protect the inlet and outlet side slopes of the road sub-grade from erosion and sloughing by armoring the fill with riprap for a distance of 1.5 diameters (D) on each side of the culvert and toeing into the streambed (Figure 1). Consider extending riprap along any erodible stream bank above and below the culvert inlet and outlet, but keep disturbance to only that which is needed to protect fill or prevent blockage of stream flow. Riprap should be placed a minimum of 1D above the height of the culvert where deep fills are required.
13. Where the new culvert is opened to water, watch for the need to add more rock armor. After checking the installation, close any dewatering channel.
14. Develop road approaches to the new culvert only as the final phase of construction.
15. Push layers of fill into place and carefully compact them to build up and maintain a consistent road grade. Be sure that a minimum of 300 mm of compacted backfill covers the top of the culvert or as specified to meet loads and rating requirements (Figure 4). Side ditches should not drain directly into the stream, but should be diverted where possible onto stable forested vegetation that can filter sediments before reaching the stream. Ensure that adequate cross drainage is in place before the culvert, to minimize the volume of water handled at the crossing.

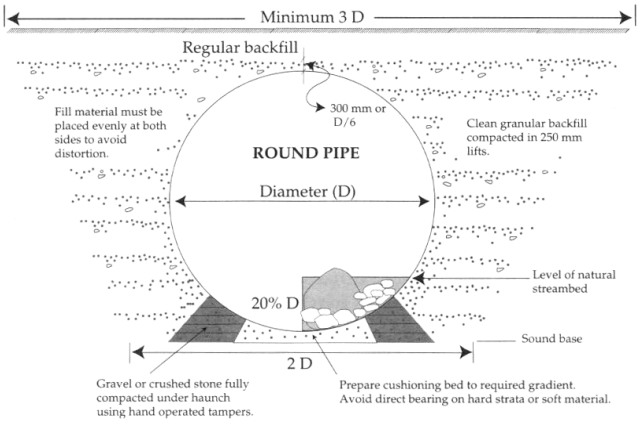

Minimum 3 D
Regular backfill
300 mm or D/6
Fill material must be placed evenly at both sides to avoid distortion.
ROUND PIPE
Clean granular backfill compacted in 250 mm lifts.
Diameter (D)
Level of natural streambed
20% D
Sound base
2 D
Gravel or crushed stone fully compacted under haunch using hand operated tampers.
Prepare cushioning bed to required gradient. Avoid direct bearing on hard strata or soft material.

Figure 3: Backfill envelope for round culvert showing bedding and compaction requirements.

16. Begin re-vegetation all exposed mineral soil as soon as possible after completing the installation.

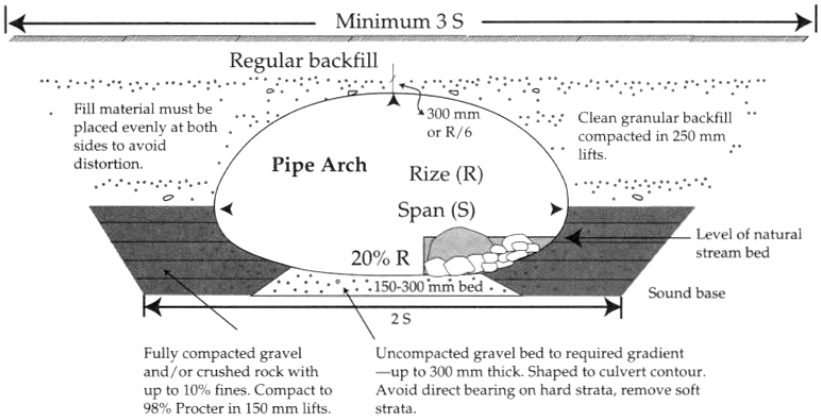

Minimum 3 S
Regular backfill
Fill material must be placed evenly at both sides to avoid distortion.
300 mm or R/6
Clean granular backfill compacted in 250 mm lifts.
Pipe Arch
Rize (R)
Span (S)
Level of natural stream bed
20% R
150-300 mm bed
Sound base
2 S
Fully compacted gravel and/or crushed rock with up to 10% fines. Compact to 98% Procter in 150 mm lifts.
Uncompacted gravel bed to required gradient —up to 300 mm thick. Shaped to culvert contour. Avoid direct bearing on hard strata, remove soft strata.

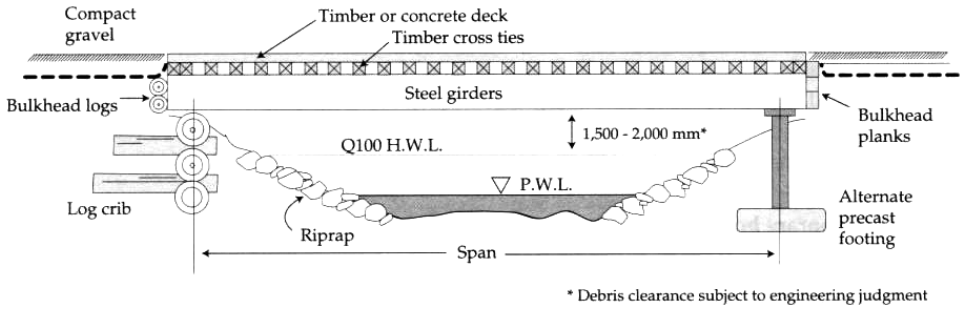
Figure 4: Backfill envelope for pipe arch culvert showing bedding and compaction requirements

7.10.3 INSTALLATION OF FOREST ROAD BRIDGES

7.10.3.1 PERMANENT BRIDGES

A typical permanent bridge installation is shown in Figure 5. An important concern with permanent bridges that employ wooden decks is the use of preserved wood. Some preservatives are toxic to fish and should be avoided. When installing timber decked bridges avoid cutting and drilling within the wetted perimeter wherever possible.

The following steps outline the general installation procedures for bridges.
Figure 5: Profile of a typical permanent bridge installation.



1. Set footings back from the stream channel so that excavation and backfilling do not encroach on the observed high water mark of the stream.
2. Operate all equipment from above the top of the stream bank and use silt fences to isolate the work area and contain sediments from the work site during construction and installation.
3. Use pre-cast concrete pads, footings or steel pilings. Pour-in-place concrete should be avoided except on rock strata clear of the channel.
4. Where water seepage is encountered during excavation before a sound, undisturbed bearing strata has been reached, consider deepening the excavation and backfilling it with compacted shot rock before putting in the pre-cast pads into place.
5. Place riprap at a 1.5H:1V slope gradient along stream banks, under the bridge, and upstream and downstream of the bridge where erosion is possible. Riprap should extend above high water level and should be of a size specified by the design engineer to resist predicted velocities of stream flow.
6. Where deck panels are made “composite” with girders, fill joints with high, early-strength concrete. The underside of the joints must be securely blocked off to avoid concrete dripping into the stream below. Similarly, when joints are filled with bituminous for removable structures, ensure the lower part of the joints are well sealed with a non-toxic filler.

7. Level approaches to the bridges for approximately 6 m. Avoid road gradients down to the bridge crossing that allow road drainage onto the bridge. Using geotextile reinforcing in the granular approach backfill or paving with asphalt will minimize pot-holing and sediment-laden ponding at bridge abutments.
8. Do not allow side ditches to drain directly into the stream. Divert them where possible onto stable forest vegetation that can filter sediments before reaching the stream. Ensure adequate cross drainage is in place before the bridge approach to minimize water volume directed into the approach ditches at the bridge sites. Consider the use of rolling grades to divert road surface runoff.

7.10.3.2 TEMPORARY BRIDGES

A typical temporary logging bridge showing several decking options is illustrated in Figure 6. These bridges differ considerably from permanent or semi-permanent structures, and are more like large log culverts. The following steps outline the general installation procedure for temporary bridges.

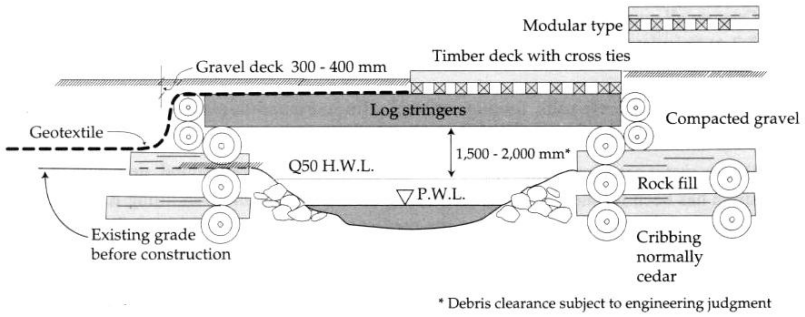


Figure 6: Profile of a typical temporary bridge installation showing several decking options.

1. Set cribs sufficiently back from the top of the stream bank to avoid disturbing the stream channel.

2. Set sill logs as close to the scour depth as possible without disturbing the stream.

3. Allow for and place riprap in front of the bottom sill of the crib to provide scour protection.

4. For gravel-decked bridges, use geotextile filter fabric to fully cover the stringers and prevent road material from entering the stream.

5. Ensure cribs are of sufficient length to retain approach-road side slopes.

6. Debark all face logs and tie back joints. Fill rock cribs progressively as construction proceeds, using clean shot rock.

7. Provide curb logs on both sides of the bridge to prevent gravel from dropping into the stream. Similarly, modular decks should not have gaps that allow road material to enter the stream.

8. Use rough-sawn, untreated wood for log bridges with timber decks and cross ties. Ensure deck planks are over the full width of the bridge between curbs.

7.10.4 PERSONNEL INVOLVED

7.10.4.1 EXCAVATOR

See Excavator SWP Section 6.5.6, page 113

7.10.4.2 CHAINSAW OPERATOR

See Chainsaw Safety Section 3.13, page 40

7.10.4.3 GRAVEL TRUCK

See Gravel Truck SWP Section 6.9.11, page 162

7.10.4.4 CRAWLER UNIT

See Crawler Unit SWP Section 6.9.8, page 153

7.11 CUT-TO LENGTH OPERATIONS

7.11.1 HARVESTER

Reference Section 6.0 - Harvesting Safe Work Procedures; Section 6.1, 6.4.1& 6.4.3

7.11.2 FORWARDER

Reference Section 6.0 - Harvesting Safe Work Procedures; Section 6.1 & 6.4 SOPs.

Emergency Equipment (to be maintained in machine)

1 Personal First Aid Kit
1 Fire Extinguisher with a 1A 5BC rating
1 Fire Extinguisher with a 3A 10BC rating or Integral Fire Suppression System
Fire Tools (1 shovel, 1 Pulaski, 1 hand tank pump)
Emergency Spill Response Kit

Emergency Equipment (to be with vehicle)

1 Level 1 First Aid Kit
1 Fire Extinguisher with a 3A 10BC rating
Fire Tools (1 shovel, 1 Pulaski, 1 hand tank pump)
Emergency Spill Response Kit
Two-way Radio

7.11.2.1 FORWARDER SAFE WORK PROCEDURES

Reference Section 6.0 - Harvesting Safe Work Procedures; Section 6.1 & 6.4 SOPs.

- Do not overload bunks, create unstable loads, or cause machine to become top heavy/unstable.
- Do not swing logs over other equipment or workers.
- Do not operate on slopes greater than 35% without additional Safe Work Procedures.
- Work up/down slopes rather than across the slope.
- Use tire chains for steering axles when traction conditions require.
- Ensure tracks are adequately corked for frozen ground conditions.
- Watch for large stumps, depressions or other objects that could cause machine to upset.
- Use caution when approaching the roadside, and watch for other workers, machines or vehicles.
- Do not build unstable log decks.
- Lower the boom and grapple to the ground or onto bunks before leaving the machine.
- Set the brakes and lockout hydraulics before leaving the machine.

Unless approved in the manufacturer's guidelines or by a professional engineer, Written Procedures are required whenever forwarding on slopes greater than 35%.

7.11.2.2 FORWARDER SAFE WORK PROCEDURE

Personal Protective Equipment:

1. High Visibility Safety Headgear
2. Hearing Protection (as required)
3. Gloves (as required)
4. Safety Footwear – steel toed boots with non slip soles & good ankle support
5. Eye Protection (as required)
6. High Visibility Vest
7. Personal First Aid Kit

NOTE: The purpose of this Safe Work Procedure is to identify hazards that may exist or arise while performing your job and to instruct you how to avoid or eliminate those hazards.

JOB STEPS	HAZARDS/CONCERNS	PROPER PROCEDURE
1. Pre-work	1. Aware of environmental impact general safety issues	2. Contractor must ensure that: ➢ operators are aware of which way timber must be forwarded ➢ operators are aware of different equipment specifications for each treatment unit within the block ➢ operations are conducted in accordance with Occupational Health and Safety Regulation and Forest and Range Practices Act ➢ Operators are aware of what detrimental site degradation is (rutting, sloughing, erosion). The forwarder operator must be aware of the site degradation limits ➢ operators are aware of utilization standards ➢ Logging Plan Map is reviewed in relation to natural features, sensitive areas and terrain to ensure feasibility of approved skid direction ➢ the operator reviews and complies with all requirements of Riparian Management Area as identified in the Logging Plan Map ➢ operators are aware of all paint and ribbon lines and their significance ➢ operators monitor progress on regular basis with respect to soil and weather conditions and shut down as required ➢ operator reviews and follows management objectives in regards to leave tree (species, size, distribution) ➢ operator avoids damaging leave trees and operates the equipment to minimize fiber loss ➢ operator does an on site review and walk locations as required to ensure familiarity with job requirements ➢ operator signs pre-work sheet acknowledging discussion and understanding

7.11.2.2 FORWARDER SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
2. Equipment Inspection, prepare for startup	1. Check unit's status: ➢ for faulty equipment ➢ leaks, worn parts 2. Elevated parts 3. Slipping and tripping hazards	1. Operator must ensure the following checks are performed: ➢ Hydraulic System - hoses, oil levels, leaks ➢ Mechanical -check & tighten belts, check battery, drain water from fuel ➢ Lubrication - check engine oil, check all oil reservoirs, radiator coolant ➢ Safety Checks - seatbelt, guarding, spill kit, fire extinguisher, first aid kit, lights, brakes, mainline and chokers Visual check for leaks , cracks, undercarriage irregularities, etc., prior to starting unit
3. Equipment startup	1. Workers in danger area 2. Slipping and tripping hazards	1. Ensure no workers in equipment operating area. 1. Always use three point contact when entering, leaving and inspecting equipment.

7.11.2.2 FORWARDER SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
4. Forwarder Process - Safety (cont'd)	3. Where conditions require the forwarding of felled timber located within two tree lengths of the falling process 4. Hidden Hazards, Slippery (frozen) conditions also increase the hazard of trees and logs "running away" after being felled or decked. Trees frequently get totally or partially buried in snow, making it difficult to see when a tree is bound up or "loaded". 5. Forwarding Right-of-Way	3. Working Safely within two tree lengths: ➢ during winter logging it is imperative that the faller (buncher), forwarder operator work as a team, and as directed by the faller and/or Supervisor ➢ fallers must walk out to where they can see the forwarder operator and give the all clear signal ➢ The faller shall present the signal only when it is safe for the forwarder to enter. The signal shall be the slapping of the top of the hardhat with the palm of the hand. This can be accomplished by the buncher by giving the all clear over the radio ➢ at no time shall fallers (bunchers) leave their trees cut up while forwarder is in the area picking logs ➢ falling process shall not resume until it has been determined that the forwarder is in the clear at least two tree lengths away ➢ chainsaw shall not be running while the forwarder is picking up the turn ➢ forwarder must maintain the two tree length distance while falling is in progress ➢ the forwarder1 shall be a safety watch and ensure that no one enters the falling areas while the falling is in progress ➢ at no time shall the forwarder be with the faller during the felling of the tree unless they are required to assist in overcoming a particular falling difficulty 4. Hidden Hazards ➢ the forwarder will load all logs clear of dangerous trees before turning ➢ picking up a tree from the snow may also move another unseen buried tree, so ensure all workers are clear of the turn ➢ ensure wood felled or pushed into decks do not escape into other work areas ➢ do not work in areas where there is a danger of pushing trees, rocks and other debris into an active work are 5. Right-of-way procedure ➢ □ do not enter an active falling area; stay a minimum of two tree lengths away. ➢ □ when pushing a tree over, remove the tension out of the trees by using the blade or winch so that they may be bucked without danger of tree springing back. ➢ □ do not create a hazard for worker who must follow.

7.11.2.2 FORWARDER SAFE WORK PROCEDURE (cont'd)		
JOB STEPS	**HAZARDS/CONCERNS**	**PROPER PROCEDURE**
5. Forwarding Process - Environmental	Damage to soil, drainage and other environmental impact	1. No skid road to be constructed without the following being completed: ➢ Location must be inspected by Contractor Supervisor and Company Supervisor prior to construction. ➢ must be ribboned prior to construction. ➢ must be authorized by the Ministry of Forests in writing. 2. Other Environmental procedures: ➢ Bladed trails must maintain surface drainage patterns and minimize runoff and soil erosion until trail is either rehabilitated or deactivated. ➢ must not side-cast material where there is a high chance of landslide ➢ skid road width must be minimized but wide enough for safe forwarding ➢ the Ministry of Forests must authorize temporary stream crossings ➢ crossings must be constructed so as to minimize disturbances ➢ crossings will be removed and rehabilitated as per Logging Plan Map ➢ slope trails toward the inside bank, never outwards ➢ forwarding shall be done in a manner that minimizes damage to roads, culverts and ditches ➢ do Not spin wheels or tracks or cause other ground disturbance while skidding in block, piling logs at roadside or landings or when constructing Skid Bridges ➢ do Not construct bladed Skid Road or remove stumps without authorization of Company Foreman ➢ do Not alter location of streams of water courses ➢ do not forward across stream, river, creek, wetland, "frog holes", or swales ➢ crossing wet areas, sensitive areas and creeks at approved designated crossing only ➢ ensure no logging debris or sedimentation enters a stream or water course ➢ minimize damage to standing timber and tree that must be left standing as per Operational requirements Report ➢ wherever possible, travel only on the mat of limbs and tops left by the harvester ➢ shall conduct and record a 100 step site degradation survey at least once a day during snow free forwarding operations

8.0 CREW TRANSPORTATION

8.1 CREW BUSES AND VEHICLES

Drivers of crew buses/vehicles must possess valid driver's license as required by the Motor Vehicle Branch. It is good practice to have the driver provide a driver's abstract annually.

Crew buses/vehicles must be maintained in sound operating condition. They must be checked daily to ensure good condition of the brakes, steering, fuel, oil, coolant, tires and lights. The vehicle must be equipped with first aid equipment, fire extinguishers, axe, shovel, roadside flares and when required, tire chains.

Chainsaws, tools, fuel, rigging or other equipment must not be carried in the driver's cab or passenger compartment of any crew bus, vehicles or crummy.

Hazardous materials, such as flammable and volatile materials, must be carried in an isolated compartment which is accessible only from outside the vehicle, and are securely fastened and fitted with adequate ventilation and drainage facilities, and if internal to the vehicle, separated from the crew compartment by an approved firewall.

Drivers must always be aware of weather and road conditions and drive accordingly. **Do Not** rely on the radio.

All road signs are to be obeyed. The Motor Vehicle Act applies to logging roads as well.

All vehicles shall operate on the right side of the road.

Clearing for oncoming traffic shall be done on the right hand side of the road, except in designated areas.

When stopping, leaving, or entering a haul road, advise road name and direction.

All vehicles operating on radio-controlled roads must have working two-way radios with the correct road channels.

When overtaking any vehicle, identify location, intentions and confirm clearance before passing.

All vehicles must slow down when approaching or passing road maintenance activities.

When stopping for any reason, identify your location and intentions. In case of breakdowns, flares or reflectors must be used.

Radio channels are posted at the start of each road. No other channels are to be used on the Forest Road System.

Extreme caution must be exercised when meeting or passing other vehicles.

Radio transmissions must be restricted to calling road locations, emergency messages and important messages pertaining to operations.

Radio transmissions are for business only. Chatter is not acceptable. Inform the individual that idle chatter should be conducted on a low-priority channel and that it is interfering with road safety.

Call as per procedures, regardless of time of day or amount of traffic.

Generally, only the 'Loaded' vehicles call their mileage. Exceptions are graders, sand trucks, wide loads, fuel truck, etc. 'Empties' call, but not at every km.

Do Not call both ways every time you meet a vehicle, unless that vehicle doesn't have a radio, or you deem it necessary.

Explosives must not be carried in any crew bus, vehicles or crummy.

Passengers must be boarded and discharged in safe locations and only when the vehicle has come to a complete stop.

Any defects, which might affect the safety of workers, shall be corrected before workers are carried in the vehicle.

Crew buses/vehicles must travel with headlights on at all times, except when stopped to clear a vehicle in the dark when headlights, including daytime running lights, are to be turned off and park lamps left on.

All crew buses/vehicles shall be properly maintained, and shall be thoroughly inspected each day before being used to transport workers.

Crew bus/vehicle drivers must be familiar with Occupational Health and Safety Regulation, Motor Vehicle Branch and Industrial Transportation Act regulations pertaining to crew transport. **Refer to OHSR Part 17; Sections 17.1 to 17.27**.

Seat belts must be worn, where provided.

No Smoking in crew vehicles.

Check engine, lights, horn, windshield wipers, brakes, steering, wheels and wheel nuts, tires, rear view mirrors, door handles and locks, gas, oil, radiator, battery, first aid kit and fire extinguisher daily.

No animal shall be transported in the operator's cab or passenger compartment of any vehicle transporting workers.

All passengers must vacate vehicle and motor must be shut off when driver fuels up. No Smoking in area.

Crew Buses/Vehicles regularly or primarily used to transport workers shall:

- Be fitted with adequate service brakes and a mechanical parking brake. The latter shall be engaged when the vehicle is left unattended

- Be equipped with first aid equipment, as specified by the first aid regulations.

Such crew buses/vehicles shall be operated by competent drivers licensed in accordance with the provisions of the Motor Vehicle Act of BC.

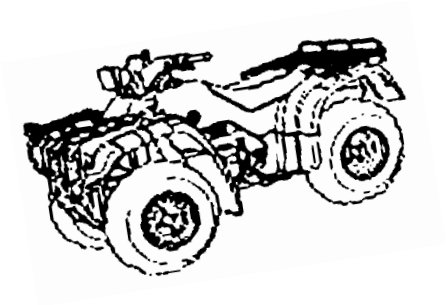
Operators of vehicles in which workers are being transported shall not pass a moving loaded logging truck, except under suitable road conditions and then only upon the signal from the driver of the logging truck.

8.2 ALL - TERRAIN VEHICLES (ATV)

8.2.1 OPERATING GUIDELINES

Pre-trip inspection should be run through before starting the vehicle.

The Employer must ensure that each All - Terrain Vehicle (ATV's) operator is properly trained in the safe operation of the vehicle. Training must cover these six points:



- the operator's pre-trip inspection
- use of personal protective apparel
- operating skills according to the ATV manufacturer's instructions
- basic mechanical requirements
- loading and unloading the vehicle, if this is a job requirement
- safe procedures for steep slope maneuvering

Refer to OHSR Part 16; Sections 16.52(2) and 16.53.

Operators on ATV must wear headgear, eye protection and hearing protection meeting the requirements of the CSA standards. **Refer to OHSR Part 16; Section 16.54**.

The ATV must be maintained in a safe operating condition and the operator must use the ATV in accordance with the instructions in the operator's manual.

Ride four-wheel ATV's only. **Refer to OHSR Part 16; Sections 16.49 to 16.55**.

Since ATV's are small and low to the ground, they are not as visible as larger vehicles. Use lights, reflectors and highly visible flags so that the ATV is easier to be seen.

Never ride the ATV on public roads or Forest Service Roads.

Never ride the ATV with alcohol or drugs in the bloodstream.

8.2.2 OPERATING THE ATV

Before beginning to operate the ATV, three questions should be considered:

a) Is the operator ready?

b) Is the ATV ready?

c) Have the hazards of the environment and tasks been considered?

The Operator:

Operators should be familiar with the ATV owner's manual, particularly with the operation and safety aspects of the manual.

All operators should be trained before operating the ATV. **Refer to OHSR Part 16; Section 16.53**.

Operators must be physically and mentally capable of handling the ATV safely. They must be alert, awake and clear-headed. They must wear the appropriate personal protective equipment.

Always keep your ATV under control. Slow down whenever conditions demand it, such as on slippery, rough terrain, on slopes or near canals and ditched banks. Ride within your own limitations and those of your ATV.

Stop at all blind intersections, coming out from between rows of trees or shrubs onto a headland or road.

Do Not overload the front and/or rear carriers; Keep the load balanced.

Driving after dark increases the risk of an accident. Even with lights, many hazards cannot be seen.

Ride off road only, never on public roads. Merely crossing a public road is dangerous and illegal. Driving on paved surfaces will damage tires rapidly.

Control of the ATV on paved surfaces is more difficult.

"Learning by trial and error can be hazardous to your health".

Loading and unloading of an ATV onto or off a carrier vehicle must be done in a safe manner.

The ATV:

The ATV should be maintained in accordance with the owner's manual.

Give special attention to the tires, brakes and throttle.

Tasks and Environmental Hazards:

Consider the tasks and travel plans for the day or trip.

Give special attention to roads, terrain, slopes, canals, ditches, blind intersections, trees, shrubs, and other vehicles, etc., which might cause accidents.

Personal Protective Equipment:

Helmets
Eye Protection
Hearing Protection
Clothing Suitable for the Environmental Conditions
Gloves and Clothing Which Covers the Ankles, Legs and Arms to the Wrists

8.3 SNOWMOBILES

Operators and passengers of the snowmobile shall wear approved safety helmets, suitable eye protection, winter helmet liners and cold weather face guards where weather necessitates.

The track of the snowmobile should be cleaned of snow and/or slush before leaving the machine for a period of time to prevent freeze up. If possible, leave the snowmobile facing down hill on the packed trail before going to work and try to park the machine in the lee of the wind.

The Employer must ensure that each snowmobile operator is properly trained in the safe operation of the vehicle.

Become aware of the effects of wind chill factor on exposed skin and dress accordingly. Learn the signs and symptoms of hypothermia and its treatment. Hypothermia is the greatest hazard encountered in snowmobile travel.

Avoid areas where avalanches are possible. Travel in heavily treed areas, tops of ridges or flat areas away from avalanche paths.

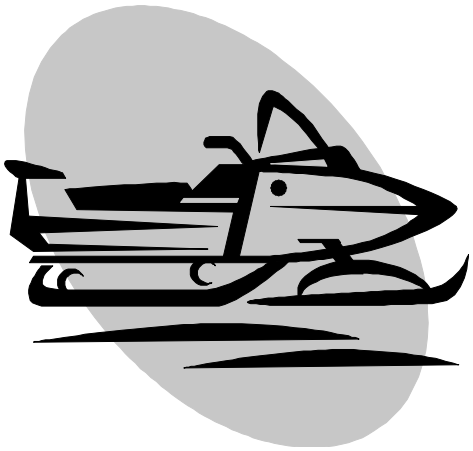
Survival Gear and Repair Kits should be carried at all times.

Suggested Additional Equipment:

- Extra fuel in safe containers
- Map and compass
- Snowshoes or skis
- Knife
- Candles
- Extra clothing
- Tool kit and spare parts
- Block and tackle
- Flashlight and extra batteries
- High energy food
- Bright tarp or plastic sheet
- Large metal cup, small pot
- First aid kit
- Flares
- 2-cycle gas
- Axe or saw
- Waterproof matches
- De-icer

If travel over lakes or rivers is absolutely necessary, test the thickness of the ice beforehand and avoid areas of fast flowing water.

Beware of hidden obstacles such as fence wires and boulders.



8.4 MOTOR BOATS

8.4.1 PREVENTION AND SAFETY

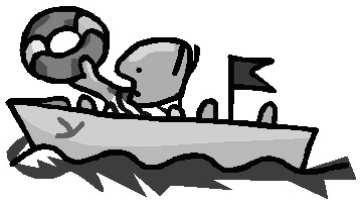
Regardless of the type of boat you have, it must be equipped with safety equipment that is in good operating order, easily accessible and of the type approved by the Canadian Department of Transport. Operator required to have an Operator Competency card.

The Minimum Required Equipment For A Boat Up To 5.5 Meters In Length Is:

- The law requires that all boats to be equipped with one approved lifejacket or approved personal flotation (PFD) device for each person on board. Take good care of the lifejacket or PFD. It should not be used to kneel on or as a bumper for the boat. Check its buoyancy regularly and allow the flotation device to dry out. It should be kept in a dry, well ventilated, easily accessible place
- Must have a radio or other means of communication with a camp or land base station
- Two oars or two paddles
- One hand-held bailer or one manual pump
- One Class B-I fire extinguisher
- Lights must comply with "Collision Regulations" if permanently fitted
- sound signaling device

Safety equipment requirements change as the boat size changes. Refer to the "Safe Boating Guide" to determine the exact equipment needed for the boat that will be used.

All crafts must be licensed and have the standard decal and capacity plate attached to the boat. Determine the number of persons you can carry safely - Overloading is dangerous.



When Fueling the Boat
Take These Precautions:

- moor the boat securely
- shut off engine
- make sure all passengers are ashore
- don't smoke and extinguish all open flames
- take portable tanks ashore
- don't use electrical switches
- ground nozzle against filler pipe, don't overfill, wipe up any spillage, turn on blower for at least five minutes and check for vapor odors

8.5 AIRCRAFT

8.5.1 GENERAL

Everyone should endeavor to make flying as safe as possible by observing the following rules and guidelines:

1 Ask for a pre-flight safety briefing from the pilot before flying in any unfamiliar aircraft to become familiar with safety features and equipment on the aircraft. Ask questions if you are unsure about anything.

2 Determine and avoid active blasting and road construction areas before entering operations.

3 Never encourage a pilot to do anything that appears unsafe or to fly in any aircraft that you consider unsafe.

4 All sharp instruments must be securely fastened down and have points and sharp edges sheathed.

5 Always take a handheld portable radio when dropped off by helicopter. Test the radio before and after the pilot flies away.

6 Check with the pilot about carrying bear spray on the aircraft. Bear spray must be carried in an appropriately sealed container and stored in the baggage compartment.

7 Do not get in or out of an aircraft without the pilot's consent.

8 Stay clear of propellers on airplanes and both rotors on a helicopter. Never approach an idling helicopter that is parked on a hill from the up-hill side. Always approach from the side where the horizontal rotor is well off the ground. When approaching or departing from a helicopter always remain within the pilot's view and proceed under his direction. Walk under blades in a crouched position. Secure all loose equipment and or gear when approaching the helicopter.

9 Load cargo slowly and deliberately. Do not throw, drop, or jam it into the cabin or storage compartment. If in doubt let the pilot secure the cargo. Never throw anything from a helicopter when the rotors are turning. Never carry anything on your shoulders or overhead when approaching or departing from a helicopter. Pack small articles in sacks or larger boxes in order to facilitate efficient handling.

10 All passengers should be aware of aircraft operation including doors, seat belts, headphones, etc.

8.5.2 FIXED WING

Transportation of workers by aircraft must be done in accordance with the applicable regulations of the Department of Transport Canada.

All persons involved shall be given adequate pre-job instruction and where necessary, trail operations training before actual operations commence.

Fasten seat belt on entering the aircraft and leave it buckled until pilot signals you to get out.

Passengers should be aware of the location of lifejackets or flotation devices on float planes.

Personal baggage and equipment should be properly secured.

The pilot is in complete charge of the aircraft. His orders must be obeyed at all times when working on or traveling in an aircraft.

Cargo should not restrict the use of emergency or regular exits.

Cargo carried inside the cabin with passengers should be secured by nets, strapping or other tie-down to prevent shifting in flight and possible injury or fatality to passengers in the event of a crash or hard landing.

8.5.3 HELICOPTER SAFETY

Approach or leave, after you have made eye contact and have received notification from the pilot.

When approaching and/or leaving the helicopter, do so in a crouching manner for extra clearance from the main rotor.

Approach or leave on the down-slope side, to avoid the main rotor. Approach or leave in pilot's field of vision, to avoid tail rotor.

Carry tools horizontally, below waist level, never upright or over the shoulder.

Hold onto hard hat when approaching or leaving machine, unless chin straps are used.

Fasten seat belt on entering helicopter and leave it buckled until pilot signals you to get out.

If leaving machine at the hover, get out and off in one smooth, unhurried motion.

Do not touch Plexiglas surfaces or any of the moving parts; tail rotor linkage, etc.

Keep heliport clear of loose articles; water bags, ground sheets, empty cans, etc.

Keep cooking fires well clear of heliport.

Loading assistants should always be supplied with plastic eye shields.

After hooking up cargo sling, move forward and to the side to signal pilot, to avoid entanglement and getting struck with loaded sling.

When directing the helicopter for landing, stand with your back to wind and arms outstretched toward landing pad.

When directing pilot by radio, give no landing instructions that require acknowledgment, as pilot will have both hands busy.

When Moving a Larger Crew:

- brief them on safety as noted on the previous page
- keep them together and well back at the side of the landing zone. This gives the pilot a chance to land quickly in the event he has a problem during landing or take-off
- have the crew face away from helicopter during the landing and take-off
- Have each crew member look after their own personal gear
- have the crew members paired off and ready to get on board as soon as the pilot gives the signal

Stay at least 15 meters away from the helicopter when the rotor blades are in motion, unless authorized by the pilot.

When nearer than 15 meters, approach or leave from the front or from side, near the front, where the pilot can always see you.

Unless equipped with safety goggles or glasses, do not watch landing, take-offs, or hovering, closer than 30 meters from the helicopter.

Stay away from tail rotor at all times, and see that others do likewise.

No smoking within 15 meters of heliport or helispot.

No smoking within 15 meters of gas and oil supply dump.

Never crawl under the frame or skids of the helicopter with it hovering, unless a safety frame is available.

Never refuel the helicopter without proper GROUND CONNECTION AND AUTHORIZATION from pilot.

8.5.4 AIRCRAFT EMERGENCY EQUIPMENT

- Emergency rations of a suitable quantity to meet Ministry of Transport regulations for the number of persons being carried
- First aid kit
- Sleeping bags sufficient to accommodate all passengers
- A tent large enough to accommodate all persons on board
- Portable compass
- An axe
- A signaling mirror
- A hunting knife
- Fire makers (matches in waterproof container)
- Snare wire
- Fishing tackle and fishing net
- Cooking utensils
- Survival booklet
- Snow shoes
- Extra socks and mittens
- Mosquito repellent

9.0 FORESTRY

9.1 SLASH BURNING

Crew Boss: Check on-site burning conditions and review ignition pattern, effect of slope and fire spread, wind, etc., that may modify or change burning plan.

Conduct a thorough on-site briefing prior to ignition of slash. Crew to be informed not only of their own responsibilities but also of the actions of others in the overall ignition sequence.

Crew must be made familiar with the burn site-escape routes and safety zones.

All ignition lines should be established moving into or across the wind.

Use buddy system - maintain visual contact and place inexperienced personnel between experienced slash burners.

A careful analysis of manpower requirements to be made for every burn with the objective of holding on-site numbers to a minimum.

Proper mixture 3 to 1 (3 parts diesel and 1 part gas). Too much gas is dangerous.

Fuel and an ignited burner are not to be moved together.

Store and mix fuels away from water bodies and only in designated areas.

Use Company-approved burners only (no open pails or cans).

Use of radio communication is recommended.

Personal Protective Equipment:

Gloves
Hi Vis Hard Hat, blaze orange
Suitable Footwear
Hi Vis Vest or Jacket
Personal First Aid Kit

9.2 Operating Burning Sloops

Oil and gas pipeline clearing usually requires the use of a burning sloop or dredge in which the fire is contained. This sloop is dragged behind a skid cat or excavator on runners. Ensure that the sloop is kept on relatively flat ground during burning operations and that all ground crews are a safe distance from it during transport down the right-of way should it accidentally tip over. Use common sense when igniting fires within the sloop to ensure that you are not burned.

Burning sloop in use – Red Earth Creek, Alberta – January, 2007

10.0 CAMP

The Employer must provide accommodations and meals that meet minimum sanitary conditions. **Refer to OHSR Part 25**.

The Camp Must Be Located Where It Is Free From Hazards Including:

- Hazardous trees and dangerous trees in or near the camp
- High water, flooding or mud slides
- Road traffic
- Movement of mobile equipment

When Locating The Camp, Consider:

- Water supply
- Location of privies (distance, wind direction)
- Kitchen location (away from sleeping areas)
- Fire hazards
- Bear problems
- Access of emergency evacuation, and normal movement of people and supplies
- Drainage
- Fuel storage area

Camps - the Regional Health Boards and Community Health Serviced Societies administer the Industrial Camps Health Regulations. If Board officers, in the course of their duties, find conditions in camps which may be of concern under the Industrial Camps Health Regulations, the matter will be referred to the attention of the appropriate officials. **Refer to OHSR Part 25**.

WSBC Inspectors may impose any assessments provided in their respective.

11.0 OTHER REFERENCE MATERIAL

WSBC Occupational Health and Safety Regulation

Ministry of Water, Lands, Air Protection

Safety Guide to Cougars - Ministry of Forests

Safety Manual - Mineral Exploration in Western Canada

Forest Practices Code - Guideline for Stream Crossings

Petroleum Industry Standards

Developed by:

Free Spirit Ventures Inc.
8545 Willow Cale Forest Road
Prince George, BC V2N 6Z9

Phone: (250) 563-9992
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WEB: www.safetypays.ca

Brian V. Brown, AScT, CRSP, CHSC, CCEP
Environmental, Health & Safety Consultant

APPENDICES

APPENDIX A

Legal Requirements and References

A1 OH&S Regulations

APPENDIX B

Forms

Appendix B1	Pre Work Meeting / Hazard Identification Form (Oil & Gas)
Appendix B2	Pre Work Safety Checklist – Forestry Operations
Appendix B3	Near Miss/Hazard Identification Form
Appendix B4	Accident / Incident Investigation Form
Appendix B5	Safety Meeting Minutes Form
Appendix B6	New Worker - Personal Information /Orientation Checklist
Appendix B7	Personal Training and Qualifications Record
Appendix B8	Trainee Checklist
Appendix B9	Logging Safety Inspection Report Forms
Appendix B10	Field Level Hazard Assessment Form
Appendix B11	Risk Assessment Form & Protocol
Appendix B12	Example Form for Doing a Hazardous Task Inventory
Appendix B13	Conducting and Testing Emergency Response Procedures (ERP)
Appendix B14	First Aid Assessment Checklist
Appendix B15	Emergency Response Procedure & Plan (Blank
Appendix B16	Emergency Response Phone Numbers
Appendix B17	Spill Report Form
Appendix B18	Frost Lake Logging Ltd. Disciplinary Actions Report
Appendix B19	Corrective Action Log (CAL)
Appendix B20	Contractor Sign In Form

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APPENDIX B1 PRE-WORK SAFETY MEETING / HAZARD IDENTIFICATION FORM (OIL AND GAS OPERATIONS)

	Health Safety & Environment Meeting				
Foreman		Date		Pre-work	.
Project Area				Tailgate Progress	.
No. Attending		No. In Crew			
Client					

Job Description or Requirement:

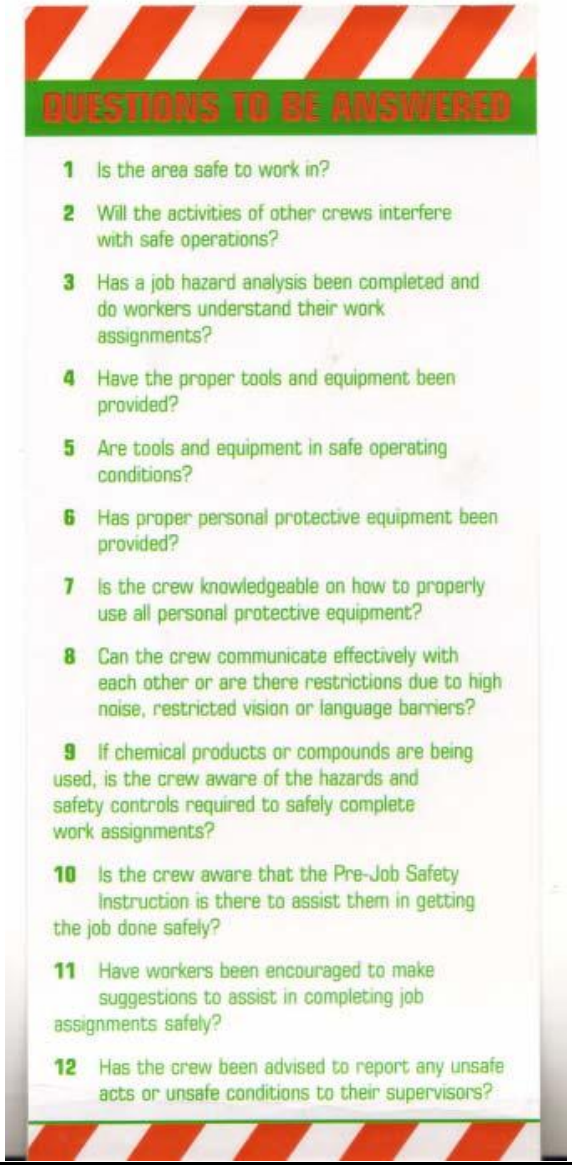
Major Risks or Potential Hazards:

Hazard Assessment and Controls:	
Hazard Assessment	Hazard Controls (Preventative Measures)

Personal Protective Equipment Required:

Signature of Workers:	
Name and Title (Please Print)	Signature

Notes and / or Comments:


QUESTIONS TO BE ANSWERED
1 Is the area safe to work in?
2 Will the activities of other crews interfere with safe operations?
3 Has a job hazard analysis been completed and do workers understand their work assignments?
4 Have the proper tools and equipment been provided?
5 Are tools and equipment in safe operating conditions?
6 Has proper personal protective equipment been provided?
7 Is the crew knowledgeable on how to properly use all personal protective equipment?
8 Can the crew communicate effectively with each other or are there restrictions due to high noise, restricted vision or language barriers?
9 If chemical products or compounds are being used, is the crew aware of the hazards and safety controls required to safely complete work assignments?
10 Is the crew aware that the Pre-Job Safety Instruction is there to assist them in getting the job done safely?
11 Have workers been encouraged to make suggestions to assist in completing job assignments safely?
12 Has the crew been advised to report any unsafe acts or unsafe conditions to their supervisors?

APPENDIX B2 PRE-WORK SAFETY CHECKLIST

Date of Pre-Work meeting: _____

Location:_____

Description	*Safety*			*Environmental*			Comments
	Yes	**No**	**N/A**	**Yes**	**No**	**N/A**	
Site Assessment Issues (** required prior to starting of work)							
Stream or water body issues (i.e. sufficient water levels for removal, contamination issues, siltation issues)							
Environmental hazards and special conditions have been reviewed (Riparian Management Areas [RMA], Wildlife tree patch [WTP], archeological sites)**							
Safety hazards and special conditions have been reviewed (overhead hazards, irregular terrain, steep slopes, isolation aspects, etc.)**							
Lighting Issues (i.e. setup for night work, sufficient light at critical points)							
General Issues							
Required personal protective equipment for the worksite has been reviewed (hard hat zones, hi-vis vests, steel-toed footwear, bucking chaps, hearing protection, gloves, etc.)**							
Workers have been made aware of where documents are located that can assist them in safety and environmental issues (WSBC regulations, Orientation Manual, Emergency Preparedness & Response Plan, MSDS sheets, etc.)							
Emergency Response Issues (all *applicable issues* must be reviewed prior to starting of work)							
Evacuation Plan completed and reviewed							
First Aid or Medical response procedures have been reviewed for this worksite (location of ETV, First Aid kits, First Aid attendant, how the Evacuation plan works for this location)							

Description	*Safety*			*Environmental*			Comments
	Yes	No	N/A	Yes	No	N/A	
H2S response procedures have been reviewed for this worksite if applicable (if wells are immediately adjacent, how the workers would be notified if there was a leak; what to do if a leak occurs)							
Spill response procedures have been reviewed for this worksite if applicable (location of all spill kits, contents of kits are complete, precautions taken for this worksite if creeks, sensitive areas, etc. are present)							
Natural disaster procedures have been reviewed for this worksite (slide potentials, flooding, high winds)							
Fire response procedures have been reviewed for this worksite for summer work (location of fire tools and equipment, who will take charge if a fire is discovered, how the responsibilities will be distributed if a fire has to be fought, etc.)							
Location of phones, phone numbers, latitude and longitude coordinates, and methods of calling for help for any response emergency has been discussed with the worker							

Special Issues, conditions, or hazards

Workers receiving this pre-job instruction

I understand the instructions given to me in this pre-job meeting, and accept the legal responsibility to conduct my actions accordingly.

Name	Signature

Person conducting pre-job	Signature

.

APPENDIX B 3 NEAR MISS/HAZARD IDENTIFICATION FORM

Company Name:	**Location:**
Personal Information (optional):	
Name:	Contact Number:
Near Miss/Hazard Data:	****Customer****
Location: Date: Time: (24 hr clock)	
Near Miss/Hazard to: People ❑ Equipment ❑ Process/Production ❑ Environment ❑	
People, equipment and/or process involved:	
Description of Near Miss/Hazard: Describe in detail the Near Miss/Hazard being identified:	
Potential Risk: Intolerable ❑ Tolerable ❑ Low ❑ Use the Hazard & Risk Assessment Matrix on the inside cover to complete this section.	
Suggested action(s) that may be taken to prevent further incidents or eliminate/control the identified hazard and by whom.	
Supervisor Name:	
Action(s) Approved by:	Date:
Action(s) Implemented: YES / NO (if no, explain below)	Date:
Should the contents of this document be communicated to other stations? YES / NO (if no, explain below)	
If action(s) was (were) taken, briefly explain what was done:	
Manager Signature:	Date:

.

APPENDIX B4 ACCIDENT / INCIDENT INVESTIGATION

Incident Information			
☐ Property Damage	☐ First Aid Attendant Name:	☐ Medical Aid	☐ Lost Time
☐ Near Miss	☐ Fatality	☐ Other	
Worker's Name:		Occupation:	
Years Experience in This Job:		Total Years of Service:	
Date of Incident:		Time of Incident: ☐ PM ☐ AM	
Date Reported**:**		Time Reported: ☐ PM ☐ AM	
Location of Incident:			
Witnesses:			

Category of Incident			
☐ Traveling To & From Work	☐ Trucking	☐ Silviculture	☐ Road Construction ☐ Bridge Construction
☐ Forestry Field Activities	☐ Harvesting	☐ Construction	☐ Maintenance & Repair

Type of Injury			
☐ Sprain / Strain	☐ Fracture	☐ Laceration/Cut	☐ Abrasion/Scratch/Bruise
Description of Body Part Injured:			
Description & Estimate of Property Damage:			

Accident / Incident Details

Cause Analysis

Type of Event (check all that are applicable)

- ☐ Struck Against (running, bumping into)
- ☐ Struck By (hit by moving object)
- ☐ Fall From Elevation to Lower Level
- ☐ Fall From Same Level (slips & fall, trip over)
- ☐ Contact with (electricity, heat, cold, radiation, caustics, toxics, biological, noise)
- ☐ Caught In (pinch & nip points)
- ☐ Caught On (snagged, hung)
- ☐ Caught Between/Under (crushed or amputated)
- ☐ Environmental Release
- ☐ Overstress, overpressure, overexertion, ergonomic
- ☐ Abnormal Operation
- ☐ Product Contamination
- ☐ Equipment Failure
- ☐ Distraction / Lack of Attention

Direct or Immediate Causes (check all that are applicable)

- ☐ Operating at Improper Speed
- ☐ Using Defective Equipment
- ☐ Failing to Use PPE properly
- ☐ Failure to Wear Seatbelt
- ☐ Under Influence of Alcohol and/or Drugs
- ☐ Using Equipment Improperly
- ☐ Inadequate Communications/Process
- ☐ Failure to Follow Procedure/Policy/Practice
- ☐ Failure to Identify Hazards and Risk
- ☐ Failure to Communicate/Coordinate
- ☐ Inadequate Guards or Barriers
- ☐ Poor Housekeeping/Disorder
- ☐ Inadequate Instructions/Procedures
- ☐ Inadequate/Improper Protective Equipment
- ☐ Failure to Secure
- ☐ Road Conditions
- ☐ Failure to Warn
- ☐ Failure to Check/Monitor
- ☐ Weather Conditions
- ☐ Improper Loading
- ☐ Improper Lifting

Basic / Root Cause (check all that are applicable)

- ☐ Emotional Disturbance
- ☐ Inability to Comprehend
- ☐ Fatigue due to lack of rest
- ☐ Improper conduct that is condoned
- ☐ Preoccupation with problems
- ☐ Lack of situational awareness
- ☐ Improper handling of materials
- ☐ Giving inadequate policy, procedures, practices or guidelines
- ☐ Inadequate instructions, orientation and/or training
- ☐ Improper performance is rewarded (tolerated)
- ☐ Inadequate inspection and/or monitoring
- ☐ Improper attempt to save time/effort
- ☐ Improper Supervisory example
- ☐ Inadequate performance feedback
- ☐ Inadequate or improper controls
- ☐ Inadequate work planning or programming
- ☐ Confusing directions/demands
- ☐ Inadequate communication of standards
- ☐ Inadequate development of standards
- ☐ Inadequate verbal communication between Supervisor and person
- ☐ Inadequate assessment of needs, risks and/or hazards
- ☐ Inadequate communication between shifts
- ☐ Drugs
- ☐ Frustration
- ☐ Lack of experience
- ☐ Lack of Coaching
- ☐ Inadequate discipline
- ☐ Improper Loading
- ☐ Inadequate update training
- ☐ Exposure to Health Hazards
- ☐ Inadequate preventative maintenance
- ☐ Inadequate human factors/ ergonomics

Description of Root Causes

Actions to Prevent Reoccurrence (Include Action, Responsibility, and Completion Date)	
Action Plan #1:	
Responsibility:	Due Date:
Action Plan #2:	
Responsibility:	Due Date:
Action Plan #3:	
Responsibility:	Due Date:

Investigation Sign Off		
Investigated By:	Signature:	Date:
Cont. Owner Review:	Signature:	Date:

☐ Witness Statements Attached.

NOTE: Whenever possible, the names and addresses of dependents/next of kin should be obtained in all serious injury or fatal investigations.

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Appendix B5 SAFETY MEETING MINUTES

General Information

Date of Meeting:
Location of Meeting:
Time of Meeting:

Attendance Record

Name	Name

Agenda items brought forward

Item	Requires Action	Requires Review

New agenda topics

New Item	Discussion Notes	Corrective Action	By Who

Time meeting adjourned:
Date & time of next meeting:
Minutes taken by:

Additional Comments may be recorded on Back

.

APPENDIX B6 NEW WORKER PERSONAL INFORMATION & ORIENTATION CHECKLIST

Confidential information to be released only to medical personnel in the event of an emergency)	
Name of Worker / Contractor:	
Address:	**Date:**
Date of birth:	**Age:**
Weight / Height:	**Health Care Number:**
Doctor:	

Are you taking medication? If yes, please list:
Are you allergic to penicillin? ❑ Yes ❑ No
Do you suffer from other allergies? ❑ Yes ❑ No
If yes, what?
Do you have any other medical problems? ❑ Yes ❑ No
If yes, what?
Have you had tetanus shot in the past 5 yrs? ❑ Yes ❑ No
Do you wear glasses? ❑ Yes ❑ No
Do you wear dentures? ❑ Yes ❑ No
Do you wear contacts? ❑ Yes ❑ No
Do you have any medical problems, disabilities or previous injuries that may affect your ability to conduct your job in a safe and efficient manner? ❑ Yes ❑ No
If yes, explain:

In the event of an injury or illness, who shall we contact?	
Name:	Relationship:
Address:	Phone Number:

APPENDIX B6

Project Supervisor:	**Hire Date:**	
New Worker:		
Topics to Cover	Date Performed	Follow-up Date
Introduction		
• Safety Manual Location		
• Document Flow and Control (HR)		
• Who your supervisor is		
Commitment & Involvement		
• Review Employee Handbook: Working Alone, and Violence in the Workplace, policies and Safety Rules. Have worker read, sign off.		
• Drug & alcohol use on the job is strictly forbidden.		
Hazard Identification & Communication		
• Must report all hazards, near misses, incidents, unsafe acts, environmental concerns and conditions to your Supervisor as soon as possible (Worker can report anonymously; there will be no consequences for reporting)		
• Location of Hazard/Near Miss Alert Forms and discuss location of Incident Reports		
• Explain Safety Meeting Form and frequency. Worker is to participate		
Rules & Procedures		
• Worker to visually inspect vehicles, tools, equipment and PPE before use		
• Worker to review all Job Hazard Analysis/Task Hazard Analysis		
• Discuss right to refuse work where imminent danger exists and report to Project Manager ASAP		
Emergency Response		
• MSDS location and hazardous materials		
• ERP location (office & site-specific) & review emergency procedures		
• Location of fire extinguisher, first-aid kit, emergency supplies, ETV and First Aid Attendant		
Training & Orientation		
• Review PPE requirements		
• Review how to wear, maintain and clean PPE		
• Be prepared for extreme temperatures and dress accordingly		
• Complete Worker Information Form (Appendix B7)		
Incident Management & Investigation		
• Worker is to report all incidents and injuries to Supervisor immediately who will fill out Incident Report ASAP (Appendix B4)		
• Worker must cooperate in investigations if requested and could be asked to provide a witness statement		

Worker Acknowledgement

I acknowledge receipt of Frost Lake Logging Ltd's training and orientation program along with its policies, rules and procedures. I agree to follow Frost Lake's Safety Program as set out in the Safety Manual.

Signature: Print Name: Date:

APPENDIX B7 PERSONAL TRAINING AND QUALIFICATIONS RECORD

Name of Worker: _____

Date of employment: _____

Previous Experience

Field of Experience	Years of experience
Type of Equipment	
Certificates and Licenses	Date of Expiry

Startup Training Summary

Category	Description	Required	Date received	By:
Company safety	Orientation training	Yes		
	On-the-job training	Yes		
	TDG Awareness	Yes		
	H_2S Awareness	Yes		
(Supervisor only)	Accident Investigation training	Optional		
(Supervisor only)	Inspection training	Yes		
Legislative and	WHMIS	Yes		
Regulatory	TDG Certification			
	H_2S Certification			
	Level 1 First Aid w/ transport			
	S-100 fire suppression			
Company environmental	Environmental awareness	Yes		
	Fuel management	Yes		
	Waste product disposal	Yes		

.

APPENDIX B8 TRAINEE CHECKLIST

Name: _____ Date: _____
Position: _____

	Explained	Understood
1. Job Description:		
➢ Man check Procedures	❑	❑
➢ Safety Concerns	❑	❑
➢ Equipment	❑	❑
➢ Safe Work Procedures	❑	❑
➢ Operations	❑	❑
➢ Trouble Shooting Duties	❑	❑
➢ Clean up Duties	❑	❑
➢ Breakdown Duties	❑	❑
2. Performance Expectations of:		
➢ Management	❑	❑
➢ Supervisor	❑	❑
➢ Fellow Workers	❑	❑
➢ Yourself	❑	❑
3. Job Performances:		
➢ Explanation of Performance	❑	❑
➢ Involvement in Problem Solving	❑	❑
➢ Performance Review and Evaluation	❑	❑
➢ Follow Up	❑	❑
➢	❑	❑
4. Informed of Safety Equipment:		
4.1 To Be Worn At All Times	❑	❑
➢ Hi Vis Hard Hat	❑	❑
➢ Hi Vis Vest	❑	❑
➢ Safety Footwear	❑	❑
➢	❑	❑
4.2 Safety Equipment – Job Specific	❑	❑
Eye Protection	❑	❑
Fall Protection	❑	❑
Gloves	❑	❑
Hearing Protection	❑	❑
Fall Arrest	❑	❑
Power Saw Leg Protection	❑	❑
Signal Device	❑	❑
Personal First Aid	❑	❑
	❑	❑

	Explained	Understood
5. Informed on Safety Procedures:		
➢ Man check System	❑	❑
➢ First Aid	❑	❑
➢ WHMIS	❑	❑
➢ Spill Response	❑	❑
➢ Fire Evacuation	❑	❑
➢	❑	❑
6. Indoctrination Tour:		
➢ Location of First Aid Supplies	❑	❑
➢ Location of ETV	❑	❑
➢ Operational Flow of Work Site	❑	❑
➢ Location of Spill Kit	❑	❑
➢ Operation of Equipment	❑	❑
7. Work Site Goals:		
➢ Safety	❑	❑
➢ FPC	❑	❑
➢ Productivity	❑	❑
8. Company Expectations:		
➢ Safety	❑	❑
➢ Attendance	❑	❑
➢ Punctuality	❑	❑
➢ Reliability	❑	❑
➢ Quality	❑	❑
➢ On the Job Performance	❑	❑

Performance Expectations: _____
_____
_____

Goal Setting: _____
_____
_____

Performance Review and Evaluation: _____
_____
_____

Follow Up: _____
_____
_____

Completed Copy Of This Form To Be Placed In Employees Personnel File.

APPENDIX B9 LOGGING SAFETY INSPECTION

Date: _____ Name: _____

Buncher Operator

P P E

- ❑ Hi-vis Hard Hat & Vest
- ❑ Hearing Protection
- ❑ Proper Footwear
- ❑ Seat Belt

Equipment

- ❑ Guarding - good condition
- ❑ Escape hatch functioning
- ❑ Oil leaks
- ❑ Housekeeping good
- ❑ Windows
- ❑ Access/Egress

Procedure

- ❑ Two Tree Length Distance
- ❑ Pushovers/ Hang-ups Removed
- ❑ Danger trees removed
- ❑ Workers in Clear
- ❑ Working according to plan
- ❑ Site Degradation minimized
- ❑ Cut-up trees left
- ❑ Safety on Steep Grades
- ❑ Safe work procedures known
- ❑ Knows who and where FA is
- ❑ Man check being followed

Skidder Operator

P P E

- ❑ Hi-vis Hard Hat & Vest
- ❑ Hearing Protection
- ❑ Proper Footwear
- ❑ Seat Belt

Equipment

- ❑ Guarding - good condition
- ❑ Access/Egress
- ❑ Oil leaks
- ❑ Housekeeping good
- ❑ Windows
- ❑ No jaggers
- ❑ Skidder Brakes

Procedure

- ❑ Jillpokes Removed from Trail
- ❑ Park Machine when Hooking Up
- ❑ Entering Landing or road side safely
- ❑ Safety on Steep Grades
- ❑ Safety on Switch Backs
- ❑ Safety on Skid Trails
- ❑ Knows who and where FA is
- ❑ Man check being followed
- ❑ Safe work procedures known
- ❑ Two Tree Length Distance
- ❑ Workers in Clear
- ❑ Site Degradation minimized
- ❑ Working according to plan

Comments: _____

_____

_____

_____

Processor Operator

P P E

- ❑ Hi-Vis Hard Hat & Vest
- ❑ Hearing Protection
- ❑ Proper Footwear
- ❑ Seat Belt

Equipment

- ❑ Guarding in good condition
- ❑ Escape hatch functioning
- ❑ Oil leaks
- ❑ Housekeeping good
- ❑ Windows in good condition
- ❑ Access/Egress in good condition

Procedure

- ❑ Workers in Clear
- ❑ Working according to plan
- ❑ Site Degradation minimized
- ❑ Safety on unstable ground
- ❑ Safe work procedures known
- ❑ Knows who and where FA is
- ❑ Man check being followed
- ❑ Man check being followed

Crawler Operator

P P E

- ❑ Hi-Vis Hard Hat & Vest
- ❑ Hearing Protection
- ❑ Proper Footwear
- ❑ Seat Belt

Equipment

- ❑ Guarding in good condition
- ❑ Access/Egress in good condition
- ❑ Oil leaks
- ❑ Housekeeping good
- ❑ Windows in good condition

Procedure

- ❑ Two Tree Length Distance
- ❑ Workers in Clear
- ❑ Entering landing/road side safely
- ❑ Safety on Steep Grades
- ❑ Safety on Switch Backs
- ❑ Safety on Skid Trails
- ❑ Knows who and where FA is
- ❑ Safe work procedures known

Loader Operator

P P E

- ❑ Hi-Vis Hard Hat & Vest
- ❑ Hearing Protection
- ❑ Proper Footwear
- ❑ Seat Belt

Trucker

P P E

- ❑ Hi-Vis Hard Hat & Vest
- ❑ Suitable Footwear
- ❑ Wrappers Installed
- ❑ Seat Belt
- ❑ In Clear During Loading

- ❑ Safe work procedures known
- ❑ Knows who and where FA is

Equipment

- ❑ Guarding in good condition
- ❑ Escape hatch functioning
- ❑ Oil leaks
- ❑ Housekeeping good
- ❑ Windows in good condition
- ❑ Access/Egress in good condition

Visitors in Area

- ❑ Hi-Vis Hard Hat
- ❑ Hi-Vis Vest
- ❑ Safety Instructions

Comment: _____

_____

Procedure

- ❑ Workers in Clear
- ❑ Working according to plan
- ❑ Site Degradation minimized
- ❑ Safety on unstable ground
- ❑ Safe work procedures known
- ❑ Knows who and where FA is
- ❑ Man check being followed

First Aid

- ❑ Kit Number:
- ❑ Blankets
- ❑ Stretchers and Splints
- ❑ Oxygen
- ❑ ETV
- ❑ Qualified Attendant
- ❑ Evacuation Procedures
- ❑ Clean and well kept

General Safety

- ❑ Wearing Eye Protection
- ❑ Man check being followed
- ❑ Buckers in Safe Zones when Logs are being Moved
- ❑ Safety Procedures when Falling on or near Haul Roads
- ❑ Trucks in Safe Area During Loading
- ❑ Specific Instruction to other Worker(s)
- ❑ Radio Communication

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APPENDIX B10 FIELD LEVEL HAZARD ASSESSMENT FORM

Check off the hazards that apply to this job. List the item # in the 2nd column (other side). Identify the plans to eliminate or control them in the 3rd column (other side).

Environmental Hazards

1. Avalanche/Slide Potential ❑
2. Fire Hazard ❑
3. Dust/Mist/Fume ❑
4. Noise in area ❑
5. Extreme temperatures ❑
6. Spill potential ❑
7. Waste containers needed ❑
8. Waste properly disposed ❑
9. Other workers in area ❑
10. Weather conditions ❑
11. MSDS reviewed ❑

Ergonomic Hazards

12. Awkward body position ❑
13. Over extension ❑
14. Prolonged twisting bending motion ❑
15. Working in a tight area ❑
16. Lift too heavy/awkward to lift ❑
17. Parts of body in line of fire ❑
18. Repetitive motion ❑
19. Hands not in line of sight ❑
20. Working above your head ❑

Access/Egress Hazards

21. Slips/trips ❑
22. Road Conditions ❑
23. Signage ❑
24. Hoisting (tools, equipment) ❑
25. Excavation (alarms, routes, ph. #) ❑

Overhead Hazards

26. Foreign bodies in eyes ❑
27. Hoisting or moving logs overhead ❑

Logging Hazards

28. Proper tools used ❑
29. Tools inspected ❑
30. Equipment inspected ❑
31. Others working adjacent ❑

Mechanical Hazards

32. Saw changes ❑
33. Hydraulic maintenance ❑
34. Working on/near energized equipment ❑
35. Fire extinguisher ❑

Personal Limitations/Hazards

36. Procedure not available for task ❑
37. Confusing instructions ❑
38. No training for task or tools to be used ❑
39. First time performing the task ❑
40. Micro break (stretching/flexing) ❑
41. Report all injuries to your Supervisor ❑

It is important that all hazards have plans to eliminate them and the plans are put in place.
Ensure that all associated permits are closed off at the end of the job.

Remember: "Stop & Think" & "See It Again For The First Time".

FIELD LEVEL HAZARD ASSESSMENT

Company Name:		Date:
Task Location:	Emergency Meeting Location:	Work to be done:
Identify and prioritize the tasks and hazards below, then identify the plans to eliminate/control the hazards.		
TASKS	**HAZARDS**	**PLANS TO ELIMINATE/CONTROL**
Warning ribbon needed? Yes ❑ No ❑		
Is the worker alone? Yes ❑ No ❑	If yes, explain:	
Job Completion		
Are there hazards remaining? Yes ❑ No ❑	If yes, explain:	
Were there any incident/injuries? Yes ❑ No ❑	If yes, explain:	
Please print and sign below (all members of the crew) prior to commencing work and initial when task is completed or at the end of the shift.		

Signature Below:	**Foreperson's Name & Signature Below:**
All names and signatures should be legible	**Reviewed by Name & Signature:**

APPENDIX B 11 RISK ASSESSMENT FORM & PROTOCOL

Project Name: **Date:** **Page: ___ of ___**

Project Location: **Supervisor:**

Identify and describe all hazardous conditions that could occur: (i.e. equipment, workers, weather, trip hazards, traffic, buildings, overhead, etc.) Use the Risk Hazard Assessment checklist.	**Estimated severity of injury:** (see Note 1) Minor = 1 Serious = 5 Major = 7 Fatal = 10	**Estimated likelihood of injury:** Unlikely = 1 Possible = 5 Probable = 7 Certain = 10	**Estimated Level of Risk:** (see Note 2) Estimated severity X estimated likelihood
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

Reviewed on Tailgate Safety Meeting? Yes ___ No ___ **Tailgate Meeting # _____**

Assessment Completed By: _____ **Date Reviewed: _____**

Note 1: Use the following descriptions as a guide: **Fatal** **Major** (Normally irreversible: permanent spinal damage, loss of sight, amputation/crushing, respiratory damage) **Serious** (Normally reversible: loss on consciousness, burns, fractures) **Minor** (Bruising, cuts, light abrasions, sprains)

Note 2: Use the estimated level of risk to set the priority for implementing safe measures. The higher the estimated level of risk, the more urgent it is to implement safer solutions.

:

B 11 RISK ASSESSMENT PROTOCOL

To establish risk, we use a ranking system developed by the U.S. National Safety Council. Two things are being determined:

- How **severe** an injury would be if it occurred and,
- What the **probability** is that it could happen
-

Severity

1. Imminent danger (e.g. causing death, widespread occupational illness, loss of facilities)
2. Serious (e.g. severe injury, serious illness, property and equipment damage)
3. Minor (e.g. non-serious injury, illness, or damage)
4. Negligible/OK (e.g. minor injury, requiring First Aid or less)
5.

Probability

A. Probable – likely to occur immediately or soon

B. Reasonably probable – likely to occur eventually

C. Remote – could occur at some point

D. Extremely remote – unlikely to occur

Example of ranking a hazard

A Company worker must ride an ATV over deactivated roads to perform a task.

- What is the hazard? Flipping or rolling over of the ATV
- What would be the severity? #1 or #2
- What is the probability? #B
- Final ranking 1B or 2B

Both of these rankings are "High Risk", and would need some type of 'control' in place to minimize the chances of it happening (lessen the probability) or the effects if it did occur (reducing the severity).

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APPENDIX B12 EXAMPLE FORM FOR DOING A HAZARDOUS TASK INVENTORY

Severity

1 = Imminent Danger

2 = Serious

3 = Minor

4 = Negligible

Probability

A = Probable

B = Reasonably probable

C = Remote

D = Extremely remote

Activity	Hazard	Risk Ranking		Control Measures	Created by:	Date
		Severity	Probability			
Shop Work						
Mechanical	Falling & crushing objects	2	B	1) Use of adequately rated lifting devices, 2) worker instruction on the use of lifting devices, 3) regular inspections to ensure condition	GR, JR	Aug 2003
	Burns (chemical)	2	C	1) Battery carriers, 2) availability of rubber gloves, 3) eye wash/first aid kit, 4) goggles or face shields, 4) WHMIS training, 5) proper ventilation		
	Respiratory damage	2	C	1) Use of respirators/face masks, 2) proper ventilation, 3) WHMIS training, 4) limit exposure duration		
	Fire or explosion	2	C	1) Adequate fire extinguishers, 2) fire suppression training, 3) removal or proper containment of flammable substances in areas where sparks or open flames are present		
	Eye injury	2	B	1) Use of proper eye and face protection, 2) use of equipment guards, 3) use of the proper tools (in the case of chipping or hammering)		
	Slipping/Tripping	2	B	1) Install more electrical outlets, 2) avoid use of long extension cords unless they are flat on the floor, 3) keep floor clutter confined to the immediate workspace, 4) pick up hoses, cords, and debris immediately after job is complete		
	Compressed air injury	2	C	1) Worker training on use of compressed air, 2) good condition of hoses and fittings, 3) bottles secured		
Welding	Burns (hot objects)	3	A	1) Use of face shields, heavy gloves, work boots, leathers, and adequate fitting clothing, 2) available first aid kit and	GR, JR	Aug 2003

Activity	Hazard	Risk Ranking		Control Measures	Created by:	Date
		Severity	Probability			
				eyewash station		
> Tank welding or pressure testing	Fire or explosion	1	B	1) Proper steaming of tanks, 2) proper “sniff test”, 3) special worker training on tank welding process, 4) use of proper air gauge, 5) tank testing training		
> Torch cutting	Flashback, hot slag, melting, concrete damage	2	B	1) Flashback arrestors installed, 2) regular inspections to ensure hoses and gauges in good condition, 3) bottles secured, 4) connections free of oil and grease, 5) removal of flammables from the cutting area, 6) sheet metal on floor to protect concrete		
> Welding process	Arc flash, fire, electrical damage, respiratory damage	2	B	1) Wear safety glasses under helmet to prevent arc flash, 2) use of respirator when welding in close quarters, 3) adequate ventilation, 4) disconnect battery cables when welding on equipment, 5) knowledge of extinguisher locations		
> Drilling, tapping, or hammering	Hot metal chips, injury from high-powered drill, flying metal fragments	2	B	1) Safety glasses and/or face shields always worn, 2) drilled material should be secured, 3) drills should be equipped with secondary brace, 3) soft hammer used for striking hardened objects		
Forestry Activities						
Residual Falling	Being cut by saw	2	A	1) Wearing adequate PPE, 2) ensure the saw is properly maintained and running satisfactorily, 3) take a firm grip on the saw before beginning the cut, 4) stand to the side when cutting, 5) use proper notching and back cut techniques, 6) wear heavy gloves when sharpening the saw and a file with an appropriate handle	GR, SB	Aug 2003
	Being struck by tree	1	B	1) Maintain two tree lengths from other fallers, 2) use signs and or spotters when falling near paths and roads, 3) check the lean and tree soundness and look up to check for overhead dangers, 4) check wind direction, 5) use proper notching and back cutting techniques, 6) have escape routes cut out and ready for use, 7) step back to the right or left, maintaining eye contact with falling tree, 8) site orientation before starting work		
	Tripping or falling injury (hoe or ripper disturbance)	2	A	1) Use the map effectively to know your position when moving around the falling zone, 2) Move slowly and deliberately from position to position, 3) try to carry out residual falling before leaf out, 4) cut out emergency trail		

Activity	Hazard	Risk Ranking		Control Measures	Created by:	Date
		Severity	Probability			
				when necessary		
	Inadequate FA response due to isolation	2	B	1) Always work in pairs, 2) complete emergency evacuation plan and review procedures before starting work, 3) test communication equipment before beginning project, 4) ensure back up plan in place if FA attendant is injured		
	Forest Fire	2	C	1) Refill saw over mineral soil whenever possible, 2) no smoking during the fuelling up process or around the saws, 3) allow saw to cool before refueling, 4) carry pocket type fire extinguishers		
	ATV use			See engineering and layout		
Engineering & Layout	ATV injuries (head, spinal cord, broken bones)	2	B	1) Use of approved headgear, 2) ATV training, 3) regular inspections to ensure equipment in good condition, 4) use of steep slope procedures, 5) use of ATV loading and unloading procedures	GR	Aug 2003
	Lack of FA response due to isolation	2	B	1) Use of proper Man check procedures, 2) ensure communication equipment works on site, 3) work in pairs wherever possible, 4) carry personal First Aid kit, 5) have FA training		
	Wild animal attack	2	C	1) Wear high-visibility clothing, 2) carry deterrent or firearm, 3) have available satellite phone when working alone in the bush, 4) have bear or animal awareness courses		
	Slips and falls	2	B	1) Wear quality footwear with good ankle support and sole protection, 2) survey the terrain before making your ascent or descent		

.

APPENDIX B13 CONDUCTING AND TESTING EMERGENCY RESPONSE PROCEDURES (ERP)

RESPONSE DRILL/TEST FOR MEDICAL, FIRE & SPILLS EMERGENCY

Operating Area/Location:			
Date:			
Conducted by:			
Personnel in Attendance			
Scope of the Drill			
Example scenario: A worker has suffered a heart attack and collapses. **Setup:** Place the worker in a prone position a distance away from the vehicle.			
Summary of the Drill results			
Description	**Yes**	**No**	**Explanation**
Knowledgeable, trained personnel were available for this drill			
Appropriate communication equipment was available			
Emergency information was available and effectively utilized			
Proper outside emergency contacts were notified in a timely manner			
All essential steps were followed for this drill (see back of form)			
Proper reports and documentation were completed			
This drill demonstrated positive results			

Action Items	
Example: further crew training is required; additional First Aid equipment is required; contents of FA kits need upgrading	

Suggested drill steps and sequence			
1	Assess the scene for danger before approaching, and note the amount of victims requiring treatment	8	Provide the following information to medical assistance: 1) patient information and condition, 2) whether land or air transport is required, 3) geographic location, 4) Lats & Longs, 5) your name
2	Briefly examine the victim's condition and note type of injury		
3	Summon the on site First Aid Attendant and additional assistance (Supervisor, other workers)	9	If air evacuation is required, identify and/or prepare a landing location for the aircraft
4	Stay with the patient until the FA attendant arrives. If no Attendant is available, proceed to step #5.	10	Load patient into ETV/Ambulance or Aircraft
5	Provide First Aid to your level of training, following appropriate protocol (ABC, body survey, etc.)	11	Complete all required reports and documentation (Patient chart, First Aid treatment book, WSBC forms)
6	As help arrives, delegate responsibilities and prepare the patient for transport		
7	Contact outside medical assistance for land or air transport and provide appropriate information (step 8)		

Actual drill steps and sequence

Step #	Description	Completed successfully?		Deficiency or Issue
		Yes	No	

APPENDIX B14 FIRST AID ASSESSMENT CHECKLIST

1. Define Workplace:

Factor Number	Factor	Indication of one workplace	Indication of separate workplace
1	Location or locations under the control of one employer.	Yes	
2	Person controlling the location or locations leased or in some similar way formally transferred control of part to another person.		Yes
3	Locations controlled by one person are separated by locations controlled by another person		Generally yes, but depends on circumstances. See 6
4	Locations of one employer more than 20 minutes apart from each other.		Yes
5	Public highway separates locations of one employer from each other in urban area.		Yes
6	Locations of one employer 20 minutes or less from each other in rural area.		Yes
7	Though adjoining, locations of one employer is separated by physical barriers.		Yes
8	Though controlled ultimately by one person, locations are under different administrative structures.		Yes

2. Determine the number of workers who may require first aid at any given time.

Workers more than 20 minutes from central workplace have independent assessment of first aid needs.

Where lodging provided the number considered is all on shift and those in the lodging.

Workers considered part of an assessment:

-Operators that are expected to be there on a daily basis
-Supervision that is expected to be there on a daily basis
-Field mechanics that provided on a daily basis

Workers that are not considered part of the assessment:

- Log truck drivers
- MOF, WSBC or other regulatory bodies
- Other supplier's mechanics that are there for short durations (i.e.: one day or less)
- Visitors
- Licensee supervision

3. Determination of level of risk.

Due to distance to medical aid

Operation of heavy equipment and nature of work and tools used in this industry.

History of injuries, accidents know for this industry

It can be stated that logging is a high risk industry.

4. Assess transportation needs.

Is the employer more than 20 minutes surface travel time to medical treatment facility?

Will the BC Ambulance Service be able to respond to an injury at the workplace within the 20 minute period?

5. Application of Assessment

Apply tables 1 & 2 to determine levels of first aid service.

6. Assessment must be conducted as required and results documented.

Table 5: This table applies to a workplace that an employer determines under section 3.16 (2) (b) of the Regulation creates a high risk of injury and that is more than 20 minutes surface travel time away from a hospital.

Item	Column 1 Number of workers per shift	Column 2 Supplies, equipment, and facility	Column 3 Level of first aid certificate for attendant	Column 4 Transportation
1	1	➢Personal first aid kit		
2	2-5	➢Level 1 first aid kit	Level 1 certificate	
3	6-10	➢Level 1 first aid kit ➢ETV equipment	Level 1 certificate with Transportation Endorsement	ETV
4	11-30	➢ Level 3 first aid kit ➢ Dressing station ➢ ETV equipment	Level 3 certificate	ETV
5	31-50	➢ Level 3 first aid kit ➢ First aid room ➢ ETV equipment	Level 3 certificate	ETV
6	51-200	➢ Level 3 first aid kit ➢ First aid room ➢ Industrial ambulance equipment	Level 3 certificate	Industrial ambulance
7	201 or more	➢ Level 3 first aid kit ➢ First aid room ➢ Industrial ambulance equipment	2 attendants, each with Level 3 certificates	Industrial ambulance

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

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FIRST AID ASSESSMENT 20___

The following table reflects the minimum WSBC standards. This Assessment meets or exceeds these standards.

Company Name: _____

1. Workplace Hazard Rating: _____
   _____
   _____

2. Job functions, work processes and tools: _____
   _____
   _____
   _____

3. Types of injuries that can potentially occur: _____
   _____
   _____
   _____

4. Minimum supplies, equipment and facilities required from table below. Supplemental equipment required: _____
   _____
   _____
   _____

5. First Aid Attendant (FAA) required: _____
   _____
   _____
   _____

6. Transportation: _____
   _____
   _____
   _____

Note: An ETV does not have to be a dedicated vehicle. It must be able to take a full stretcher while leaving room for the FAA to perform his duties.

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APPENDIX B 15 EMERGENCY RESPONSE PROCEDURE & PLAN

O.F.A. Attendants Present

Supervisor(s) Present

Employees Present

Yes	No	
☐	☐	Have Emergency Radio Procedures and frequencies been established?
☐	☐	Have all safety issues and hazard concerns related to this project been established?
☐	☐	Have the project location and emergency phone sheets been filled out?
☐	☐	Has the on-site First Aid Attendant and ETV location been identified?
☐	☐	Has the on-site marshalling point / safe escape routes been discussed?
☐	☐	Has the Man Check / Working Alone procedure been reviewed?

Safety Issues and Project Specific Hazard Concerns Discussed:

Upon completion and review of this form, it must be posted at the project site and its location made known to the crew (i.e. on-site shop reefer).

In Case Of Emergency

We Are Located At (Camp)	Latitude / UTM	Longitude / UTM
Frost Lake Camp - 38.5km on Leo Creek FSR	124d 52m 43s 10U 6088478	54d 55m 43s 10U 379544

CP/Block #	Latitude / UTM	Longitude / UTM

Radio Frequencies in Use:	**Tx**	**Rx**
Road Channel:		
Bush Channel:		
Loading Channel:		
Repeater Channel:		

In Case of Medical Emergency (Specific - Fort Saint James Operations):

1. In case of emergency, using Monkman or Apollo Repeater frequencies, call any of the first aid attendants and your Supervisor. Briefly describe what is required and your location. Do not use the patients name on the radio.

2. Anyone who is designated by the first aid attendant or is able to place a call can radio for emergency transportation.

3. Call the **Provincial Ambulance Service** at **1 800 461 9911** and explain to them that you will meet them at a preferred meeting point (Usually the Leo Creek - Tachie Rd Junction at 40km on the Tachie Rd). Let the Ambulance Service know that you will be running on L&M Frequency (151.655) heading down the Leo Creek FSR and what time you expect to be at the meeting point.

4. If an **air evacuation** is necessary, call the **Provincial Ambulance Service** at **1 800 461 9911** and explain that you require an air ambulance using one of the following helicopter companies:

   Pacific Western Helicopters: Prince George - **(250) 562 7911**
   Or:
   Interior Helicopters: Fort Saint James - **(250) 996 8644**)

   - Let them know you require a helicopter that can accommodate a spine board for patient evacuation (it is also important to ask what side the stretcher sits in so that you can position the patient on the proper side facing the attendant).
   - Make sure you also give them your location as well as the Latitude/Longitude for the area (which is available off of your Logging Plan Maps).
   - Complete an Air Medi-vac Information Card found on the next page of this document.

Air Medi-vac Information – Fort Saint James Area

Air Ambulance Dispatch: **1 800 461 9911**

Pacific Western Helicopters:
Prince George - **(250) 562 7911**

Interior Helicopters:
Fort Saint James - **(250) 996 8644**)

Prince George Regional Hospital: **(250) 565 2000**
Fort Saint James (Stuart Lake Hospital): **(250) 996 8201**
Vanderhoof (St. John Hospital): **(250) 567 2211**
Mackenzie & District Hospital: **(250) 997 3263**
Smithers Hospital (Bulkley Valley District Hospital): **(250) 847 2611**

Name of person calling? _____

Contact Phone Number? _____

Contact Frequency/Name? _____

Location:
Latitude: _____ Longitude: _____

Geographic Description: _____

Destination_____

Number of Persons Injured? _____

Age _____ Sex _____ Approx. Weight? _____Lbs

Nature of Injury _____

Breathing Problems? _____ Yes _____ No

Is the patient Unconscious? _____ Yes _____ No

Is there uncontrolled bleeding? _____ Yes _____ No

Position of the patient (lying, sitting, standing) _____

Is a stretcher required? _____ Yes _____ No

Is the First Aid Attendant on site? _____ Yes _____ No

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APPENDIX B16 EMERGENCY RESPONSE PHONE NUMBERS

SERVICE	PHONE NUMBER	SERVICE	PHONE NUMBER
RCMP		Forest Fire Report	1-800-663-5555
Ambulance		Aircraft Distress	1-800-567-5111
Hospital		Provincial Emergency Program	1-800-663-3456
Company Office		Ministry of Environment	
		Canadian Transport Emergency Centre	613-996-6666
		Dangerous Goods Spills	1-800-663-3456
		Fisheries and Oceans	
Helicopter Companies:		Workers' Compensation Board:	
Pacific Western			
PG	562-7911	Local WSBC Office	
McKenzie	997-6911	Vancouver	1-800-661-2112
Fort St. James	996-8735	Richmond	1-604-273-3100 Weekdays
Vancouver Island	963-9884		1-604-273-7711 Weekends
Yellowhead			
PG	964-2569		
McKenzie	997-5575		
Fort St.James	996-5699		
Vanderhoof	567-5777	Air Ambulance	1-800-561-8011

LOCATION	POLICE	AMBULANCE	HOSPITAL
Prince George	911	911	565-2000
Vanderhoof	567-2222	1-800-461-9911	567-2211
Fort St. James	996-8269	1-800-461-9911	996-8201
Fort St. John	785-8100	785-2079	785-6611
Chetwynd	788-9221	788-3522	788-2236
Mackenzie	911	1-800-461-9911	997-3263

.

APPENDIX B17 SPILL REPORT FORM

Spill Report Form

Name of Reporter: _____

Telephone number: _____

Name of Company: _____

Telephone number: _____

Location of Spill: _____

_____

Date/Time of Spill: _____

Substance of Spill: _____

Quantity: _____

Cause and effect of spill: _____

_____

Measures taken to stop, contain, minimize the spill:

_____

_____

_____

Description of spill location and surrounding area:

_____

_____

Further action required: _____

_____

Agencies on site: _____

_____

Others notified of spill: _____

_____

Report completed by: _____

Date: _____

.

APPENDIX B 18 **DISCIPLINARY ACTIONS REPORT**

Frost Lake Logging Ltd.
DISCIPLINARY ACTIONS REPORT

Project Identification_____

Project Supervisor's Name_____

Employee Name_____

Date and Time of Report_____ ____:____ am__ pm__
(DD/MM/YY)

REPORT SUMMARY

_____

_____

_____

_____

_____

_____

_____

Verbal Warning ____ Supervisor's Initials _____
Written Warning ____ Supervisor's Initials _____
Suspension ____ Supervisor's Initials _____
Termination ____ Supervisor's Initials _____

Supervisor Signature_____

I acknowledge receipt of this report (worker signature)
_____

Copies to:

Site Record	Employee	Head Office
_____	_____	_____

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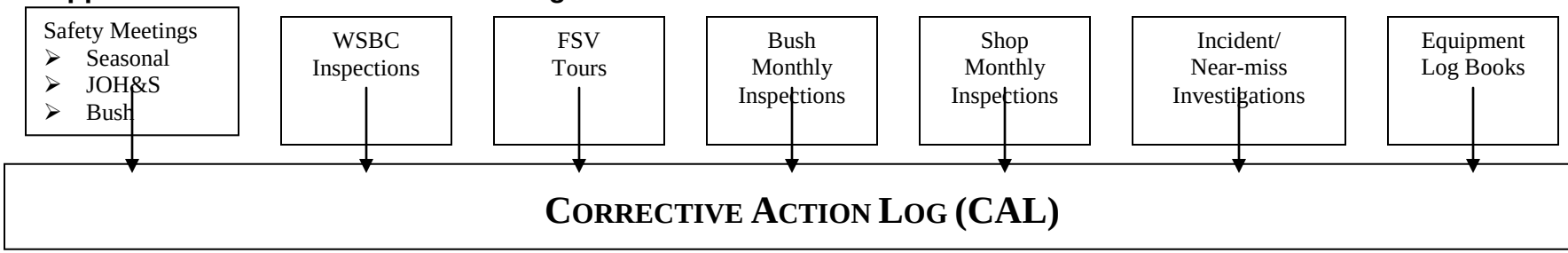
Appendix B19 Corrective Action Log



Date Reported	Corrective Action	Person Responsible	Due Date	Date Completed

cc: Seasonal Meetings, JOH&S Meetings, (per meeting)
Safety Meetings (monthly)
Management & Supervisors (monthly)

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APPENDIX 20 Contractor Selection Checklist

Description	Yes	No	N/A	Pass/Does not Pass
GENERAL CONTRACTOR INFORMATION				
WSBC Account: the contractor has an active account in good standing?				
Has the contractor received WSBC orders?				
Does the contractor have a positive ERA rating?				
Does the contractor know who to notify at Frost Lake Logging Ltd for any safety issues, incidents or unsafe conditions?				
Will the contractor be hiring any subs, (if so they also must be SAFE Companies certified)?				
Has the contractor signed off on Frost Lake Logging Ltd Safety Program and been put through the Orientation Checklist?				
Has the contractor been advised to attend all safety meetings?				
Has the contractor had WSBC orders/sanctions in the past two years?				
CONTRACTOR REQUIREMENTS				
SAFE Company Certification: the contractor has achieved certification to the SAFE company standard Date of Certification: _____ Certification #: _____				
Or: Is the Company SAFE Companies registered?				
Has the contractor provided a safety record?				
Has the contractor been advised to submit annual safety summaries?				

Name of Principal Evaluator:	Signature

Date and Location of Selection Evaluation

.

APPENDIX C

Policies and Procedures

C1 Guidelines to Tailgate Safety Meetings
C2 Inspections Policy and Procedure
C3 Incident Investigation Policy and Procedure
C4 Disability Management
C5 Drug and Alcohol Policy
C6 Harassment in the Workplace Policy
C7 Visitor Safety Policy
C8 Vehicle Policy
C9 Smoking Policy

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APPENDIX C1 GUIDELINES FOR TAILGATE SAFETY MEETINGS

FROST LAKE LOGGING LTD.

A Tailgate Safety Meeting **must be** documented and held prior to the start-up of any operation in any new area or location, and before any work commences on any jobsite, usually conducted at the beginning of the day.

A Tailgate Safety Meeting should include all Employees, Contractors, and Sub-Contractors. All employees should be in attendance at time of safety meeting at the beginning of the day.

Topics to be covered should include:
- Emergency procedures
- Location of First Aid Station / First Aid Attendant, First Aid Policy
- Use of personal protective equipment (site specific)
- Common hazards (chemical and physical) in the workplace
- Boundaries, wildlife habitat, and private properties
- Applicable safe work procedures
- Communications – Radio procedures / cell phone coverage
- Review of site inspection reports / accident investigations
- Adoption of minutes of the previous meeting

A new Tailgate Safety Meeting should be conducted, when:
- Change in work procedures
- Introduction of new equipment
- Injury accident or incident
- New employee or contractor to workplace

Tailgate Safety Meetings should not become repetitious and should be read aloud.

Meetings should be conducted by Management, Supervisors/Foreman's or Safety Personnel.

Good time to review two Company rules and two safe work procedures, along with review of Guiding Principles.

Formal safety meetings will be held at least once per month.

Tailgate meetings will be conducted as the need arises, such as after a near miss incident or a serious accident.

Pre-work safety meetings will be held at the start of each new harvesting and/or road construction operation.

All of these safety meetings must be formally documented on the following form and turned into the office with the employee time reports.

EFFECTIVE DATE:

HISTORY:

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APPENDIX C2 INSPECTIONS POLICY AND PROCEDURE

OH&S Regulation
Part 3 Workplace Inspections
Section 3.5 General requirement
Section 3.6 Inspection of tools and equipment
Section 3.5 Special Inspections
Section 3.6 Participation of the committee or representative

OH&S Guidelines
None

POLICY

Site inspections are to take place at a minimum of once a month. An inspection for hazards and work conditions is to be performed at the initiation of any new work location. This should coincide with the pre-work process. Additional inspections may occur when there has been an incident or a new process implemented. Where practicable a Supervisor and worker shall perform the inspection. Inspections are not to be limited to physical plant only but shall in clued people and process

PROCEDURE

A. General:

1. Workplace inspections will be conducted on a monthly basis by the applicable personnel.

2. If it is not practical to inspect the entire workplace once per month, due to the size or complexity of the workplace then a monthly inspection of, at least part of the workplace shall be conducted, in such a manner that the entire workplace will be inspected throughout the course of the year. Another alternative is to include the inspection in the pre-work for any new work location.

3. Inspections are to be conducted prior to the regularly scheduled H&S meeting, preferably one week in advance. This allows for any observations and recommendation identified in the inspection report to be discussed by the entire workforce.

4. A tentative schedule for workplace inspections should be developed and posted by the Safety Committee at the beginning of each year.

B. Inspection:

1. Workplace inspections will be conducted by a Supervisor and at least on crew member.

2. The “Inspection Checklist” found in Appendix B-B9, may be used as a guide and all observed unsatisfactory conditions shall be recorded on that form.

3. The Inspection team shall record recommendations and assign responsibility for corrective actions.

4. Copies of the Workplace Inspection will be:
   (a) Made available to all workers
   (b) Discussed at the next safety meeting.
   (c) Copied to Company office for filing

C Analysis and Follow-up

1. The area Supervisor is responsible for reviewing the Workplace Inspection Report and ensuring the corrective actions for each deficiency are being implemented.

2. The Workplace Inspection Report shall be completed by the area Supervisor within one week and shall contain the following information:
   (a) The action taken or planned to be taken
   (b) The approximate completion date
   (c) The person responsible for implementing the action

3. Subsequent workplace inspections will review the items from previous inspections to ensure the remedial actions resolved the concern.

NOTE:

This procedure outlines the proper process for the workplace inspections/audits to be conducted by the workforce n compliance with the minimum requirements of the OH&S Regulation.

Nothing in this procedure prevents Managers/Supervisors/ from conducting regular safety related workplace inspections of workplaces under their jurisdiction to ensure continuous application of workplace safety controls, to seek improvements to the companies OH&S Program and to ensure a high level of safety/health awareness by employees at all times.

EFFECTIVE DATE:
HISTORY:

APPENDIX C3 INCIDENT INVESTIGATION POLICY AND PROCEDURE

WCA
Part 3 Division 10 Sections 172 – 177 Accident Reporting and Investigation

WCA Policy
Policy Item D10-172-1 Accident Reporting and Investigation

OH&S Regulation
Part 3 Section 3.4 Incident Investigation Reports

OH&S Policies or Guidelines
None

POLICY

Employee or contractor must notify the direct Licensee Supervisor of accident/incident or near miss.

a) In the case of serious injury or death, the Licensee Supervisor will immediately contact:
   - The RCMP
   - The WSBC at the following:1-888-621-7233
     (604) 276-3301 (8:30 am-4:30 pm M-F)
     1-866-922-4357 (after hours)

b) All other incidents within 24 hours of occurrence.

(1) An employer must immediately notify the board of the occurrence of any accident that

(a) Resulted in serious injury to or the death of a worker,
(b) Involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system, or excavation,
(c) Involved the major release of a hazardous substance, or
(d) Was an incident required by regulation to be reported?

(2) Except as otherwise directed by an officer of the board or a peace officer, a person must not disturb the scene of an accident that is reportable under subsection (1) except so far as is necessary to

(a) Attend to persons injured or killed,
(b) Prevent further injuries or death, or
(c) Protect property that is endangered as a result of the accident.

PROCEDURE

A. Accident/Incident Investigation Form

a) Employee or contractor will complete an Accident/Incident Investigation form focusing on identification of root cause(s), within five days of the incident.
b) Develop an action plan to eliminate or minimize/mitigate risk of reoccurrence.
c) Employee or contractor will review completed Accident/Incident Investigation form with direct Licensee Supervisor to review root cause(s) and to determine final action plan.
d) Licensee Supervisor will forward completed Accident/Incident Investigation form to Woodlands Admin.
e) Admin will forward a copy of the investigation form to the Woodlands Safety Committee and file the original.
f) Licensee Supervisor will conduct follow up actions to ensure that the action plan has been carried out and that the risk of reoccurrence has been eliminated or minimized.

B. Process:

The investigation will, as far as possible, try to determine:

1. The cause or causes and all incidents leading to the cause of the accident/incident.
2. Unsafe conditions, acts or procedures that contributed to the accident/incident.
3. Recommendations for corrective action to prevent future similar occurrences.

The Employer in compliance with Division 10 of the Occupational Health and Safety Regulation will:

1. Upon notification of an accident, as stated under Section 172, inform the WSBC Industrial Health and Safety Division and give all pertinent information.
2. Preserve the accident scene until all forms of investigation have been completed. If the scene must be disturbed, make a sketch or take photos to show original layout.
3. Work in co-operation with the Safety Committee, whenever possible, when investigating accidents.
4. Ensure that the investigation kit is kept in readiness for use at all times.
5. Investigate all accidents that do not fall under Section 172; but require first aid and/or medical treatment; or any incident that had the potential to cause serious injury.
6. Have someone from another area investigate to lessen the chance of "overlooking" contributing factors.

Investigation Kit:

- camera and film
- tape measure - 15m
- clipboard and pad
- ruler
- pencil and pens
- flashlight
- chalk (yellow and white)
- ten 4 inch spikes
- surveyors tape 15m - red
- accident investigation form
- checklist

C. Points to Remember:

Be conscious of the feelings of others, particularly persons involved in the accident/incident.

Arrange for comfortable quarters to interview, such as your vehicle if necessary.

Keep in mind that some people may feel some guilt if serious injury or death occurred.

You will encounter individuals with personal biases; don't jump to any conclusion or pre-judge other persons' accounts until you have all the facts.

Never slip and pass on information given to you in confidence by another party.

Stick around after you have finished your formal investigation - you'll be surprised at the valuable information you can get from people who say, "I didn't want to say anything before but …"

D. Writing the Report:

Describe the events leading up to and including the accident in chronological order.

Be exact and specific in detail relating to the information obtained through the investigation.

Use as many sheets of paper as required for the report to describe what took place.

Attach in order all diagrams and photos relating to the accident, describing what each one is.

List your recommendations to treat or correct the cause of the accident. It should take into consideration all possible cause with recommendations for remedy.

A follow-up should be made to ensure the correct recommendations have been carried out to prevent future similar accidents.

If recommendations cannot be implemented or will be delayed, post such information, with reasons, for workers' information.

E. WSBC REPORTING

Workers must report any injury as soon as possible.

A worker must report any injury or disabling occupational disease as soon as possible to the Employer, or a representative of the Employer. Representatives of the Employer include the:

- Supervisor
- First Aid Attendant
- Agent in charge of the work where the injury occurred

- **The report must include:**

- The name of the worker
- The time and place of the occurrence
- A description of the disease or injury and its cause

In case of death, the worker's dependent makes the report.

For an occupational disease, the Employer to be informed is the one who last employed the worker in the type of work that can cause the disease.

At the request of the Employer, the worker, if fit to do so, must give the Employer details of the injury or occupational disease on a form prescribed by the board. The Employer supplies the form to the worker.

If a worker fails to provide the information required, the claim for compensation will not be allowed, unless the board is satisfied that:

- The information adequately describes the disease or injury and how it happened,
- The Employer or the Employer's representative had knowledge of it, or
- The Employer has not been prejudiced, and the board considers that the interests of justice required that the claim be allowed.

Employers must report injuries, occupational disease, and death to the board.

An Employer must report every work-related injury and disabling occupational disease, or allegation of an occupational disease to the board. The report must be made within three days of the occurrence of the injury.
An Employer must report every work-related death immediately to the board and the board's local representative.

The report must be on the form prescribed by the board and must state:

- the name and address of the worker
- the time and place of the disease, injury, or death
- the nature of the injury or alleged injury
- the name and address of any physician or qualified practitioner who attended the worker, and
- any other details required by the board or by regulation

An Employer who does not report to the board is committing an offence, unless Employer has a good reason why the report could not be made and is excused by the board

The employee in conjunction with the WSBC, RCMP and Prime Contractor (if applicable) will ensure next of kin has been notified.

EFFECTIVE DATE:
HISTORY:

.

APPENDIX C4 DISABILITY MANAGEMENT POLICY

POLICY

The Company will make every reasonable effort to ensure employees who are disabled as a result of injury or illness have the opportunity to regain their productive potential and maintain their self esteem through reintegration into the work force in as timely manner as their conditions permit.

Frost Lake Logging Ltd. policy regarding Injury Management/Return to Work is as follows:

- All employees have the right to return to their jobs following an injury or illness if the employee is able to perform the duties of that job.
- This policy applies whether the illness or injury suffered by an employee is occupational or non-occupational in nature.
- No employee will be allowed to return to any type of work if there is a reasonable belief that the employee or others are put at risk of injury, or if the employee's eventual recovery will be delayed as a result.
- Successful reintegration of the employee is based on a cooperative approach developed by the employee, the employer, the employee's representatives and other stakeholders.
- Company will designate an Injury Management (IM) Coordinator to oversee coordination and overseeing of the Company IM Program. All employees will be made aware of who this individual is.

The Company will follow the WSBC position on modified work:

- Appropriate and valuable in all cases where a suitable and productive job is available.
- Employer must be willing to offer job.
- Worker's attending physician must be consulted.
- Must not harm patient or slow recovery.
- Within reasonable limits, worker must agree to return to work.
- Token or demeaning work is not suitable.
- The WSBC adjudicator must make the decision (consulting doctor and Employer) whether or not the job is suitable. This applies only in the case of an injured employee returning to work after a compensable injury.
- The adjudicator must be made aware of the "exact" nature of the job offered where in doubt should personally investigate. Each case is judged on its own merits.
- The reasonableness of worker's refusal or acceptance must also be based on a true understanding of the facts and accurate assessment of the job being offered by both doctor and WSBC adjudicator.

Before modified work can go ahead the:

- WSBC adjudicator must be satisfied that job description is accurate and must consider nature of work offered.
- Physician should have all necessary information at his disposal in order to provide informed opinion on physical ability of injured worker to perform work.
- Job must be productive.
- Worker must agree to return to work. If the worker does not agree with returning to work, the reasonableness of the disagreement must be investigated by the WSBC adjudicator.

PROCEDURE
An employee recovering from an injury will fill selective jobs and tasks when the jobs and tasks are available. No make-work projects will be initiated. No regular employee will be replaced.

The Company will identify jobs that are considered as being suitable for modified work depending upon the nature of the injury.

Responsibilities of Injured Employee

- Reports the injury or illness as soon as possible to their direct Supervisor.
- Provides appropriate medical information as requested by IM Coordinator to assist in identifying personal limitations.
- Advise IM Coordinator, Supervisor and Management immediately of any change in circumstances that may affect the return-to-work process.
- Attends all medical and rehabilitation appointments and undertakes graduated or modified return to work activities that have been agreed as appropriate by medical resources.

EFFECTIVE DATE:
HISTORY:

APPENDIX C5 DRUG AND ALCOHOL POLICY

The Company, in order to maintain high standards for the workplace and regulatory adherence, must ensure that all employees and contractors are aware of and following policy and procedures in place. Those individuals whose actions contravene Company policy will be disciplined using the Company Discipline Policy.

Employees and Contractors (logging, log hauling or other) for the Company will be subject to the Policies and Company Discipline Policy.

Drug and Alcohol Policy

The effects of drug and alcohol on an individual pose a serious threat to the safety of that individual and others around that individual.

Therefore, the use of alcohol and drugs is **strictly prohibited**.

Any employee or sub-contractor found using drugs or alcohol while working on a Company worksite, in a Company vehicle, or when representing the Company will be **terminated immediately**.

This also encompasses working while **under the effects** of drugs and alcohol administered prior to the scheduled shift.

EFFECTIVE DATE:
HISTORY:

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APPENDIX C6 HARRASSMENT IN THE WORKPLACE POLICY

The Company, in order to maintain high standards for the workplace and regulatory adherence, must ensure that all employees and contractors are aware of and following policy and procedures in place. Those individuals whose actions contravene Company policy will be disciplined using the Company Discipline Policy.

Employees and Contractors for the Company will be subject to the Policies and Company Discipline Policy.

Harassment in the Workplace

The effects of harassment on an individual pose a serious threat to the safety of that individual and others around that individual.

Therefore, the use of harassment in the workplace is strictly prohibited. Any employee or sub-contractor found using harassment while working on a Company worksite or representing the Company will be disciplined as dictated under the Discipline Policy (three step policy).

Harassment is defined by Webster's dictionary as "to annoy, to irritate, to trouble by constant raids and attacks." Harassment is committed by one or more persons against one or more other persons.

Unacceptable behavior under this definition shall include but is not limited to:

a. Insulting Comments
b. Abusive Comments
c. Verbal Attacks
d. Unsubstantiated or Unsupported Complaints to Management
e. Uttering Non-violent or Veiled Threats

All complaints and investigations shall be carried out in confidence.

Please forward any complaints to your Supervisor by filling out an "Employee Concern report." These forms can be found in your Start Up package, at the worksite or from a Supervisor. An alternative manner, if the previous options are unacceptable, is to contact the Head Office and lodge your complaint.

Once a complaint is received an investigation shall occur with two Supervisors involved. If the complaint is verified the Company shall act in a manner according to its Policies and Discipline policy.

All complaints and investigations shall be carried out in confidence.

EFFECTIVE DATE:
HISTORY:

.

APPENDIX C7 VISITOR SAFETY POLICY

1. VISITOR NOTICE:

Welcome! Frost Lake Logging Ltd. is committed to making you visit a safe and healthy one for you and others in the workplace. It is for that reason that we require all visitors to Frost Lake Logging Ltd. grounds, facilities and workplace to abide by the following safety rules while they're here.

IT TAKES THE EFFORTS OF EVERYONE WORKING TOGETHER – INCLUDING VISITORS – TO MAKE A SAFE & HEALTHY WORKPLACE

2. HAZARD/EMERGENCY PLAN NOTIFICATION:

As part of the log in process, you will be given a sheet describing the hazards of the workplace and the procedures to follow in the case of an emergency.

3. PERSONAL PROTECTIVE EQUIPMENT:

All visitors may be required to wear the following personal protective equipment while visiting the shop area

- Safety Headgear
- Safety Eyewear
- Hearing Protection

4. RULES OF CONDUCT:

All visitors must obey the following rules of conduct at all times:

- Follow all verbal instructions and signs
- Don't touch or attempt to operate an y machine, device or equipment unless told to do so
- Don't talk or engage in any pranks, horseplay, contests, feats of strength, running, or rough and boisterous conduct
- Stay out of restricted areas
- Report all injuries or problems immediately, no matter how minor

5. NONCOMPLIANCE:

Visitors who fail to follow these policies will have their visiting privileges revoked and be asked to leave. Frost Lake Logging Ltd shall not be responsible for injuries suffered to visitors as a result of violating these rules.

EFFECTIVE DATE:
HISTORY:

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APPENDIX C8 VEHICLE POLICY

OH&S Regulation

Part 17 Transportation of Workers
Section 17.1 Application
Section 17.2 Employer's responsibly
Section 17.3 Seat belts
Section 17.4 Riding restrictions
Section 17.5 Securing equipment
Section 17.6 Hazardous materials
Section 17.7 Carrying animals
Section 17.8 Passenger compartments
Section 17.9 Boarding and leaving

OH&S Guidelines

G17.1to G17.9

Canada National Safety Code Standards

VEHICLE POLICY

The company in order to maintain high standards for the workplace and regulatory adherence must ensure that all employees and contractors are aware of and following Policy and Procedures in place. .

Employees and Contractors (logging, log hauling or other) for the company will be subject to the Policies and Company Discipline Policy.

Company Vehicle Use Policy

As of January 1, 2008 no employee or contractor is permitted to use a company vehicle for personal use without the direct consent of their supervisor. The company can not and will not expose itself to any liability that may arise from an individual using a company vehicle for personal use.

As of January 1, 2008 no employee or contractor is permitted to use a company vehicle for personal use or for work use without a valid driver's license. The company can not and will not expose itself to any liability that may arise from an individual using a company vehicle for personal use or for work use without a valid driver's license.

Infractions to this policy will be dealt with as per the Discipline Policy.

PROCEDURE

Consideration should be given to integrating the C.M.V.R. Program with the Employers Public Risk Management Policy. The potential of civil action with respect to motor vehicle accidents and injuries is overwhelming.

Prudent employers may ensure that the legislated standards set out in the code will be implemented by delegating someone within the corporate profile to maintain the following **mandatory** records, logs and procedures.

* Mandatory Daily Vehicle Inspection (Circle Check) Form
* Mandatory Load Security and Covering Check **"**before the trip**."**
* ***** Mandatory, Record (Log) of Maintenance assembled & kept current for each vehicle.
* Maintained Annually (CVOR) Commercial Vehicle Operators Registration.

EFFECTIVE DATE:
HISTORY:

APPENDIX C9 SMOKING POLICY

OH&S Regulation
Part 4 Environmental Tobacco Smoke
Section 4.81 Controlling Exposure
Section 4.82 Designated Areas

OH&S Guidelines
G4.81to G4.82

POLICY

- Smoking is prohibited in all enclosed areas within any company building or provided accommodation.
- Smoking is not permitted while working in the bush unless employee is seated in a designated area. This "area" may change as per clients' requests and/or applicable fire conditions present.
- Smoking is not permitted in company vehicles or mobile equipment.

"Non - compliance with this policy may result in fines and/or disciplinary action".

PROCEDURE
The Environmental Tobacco Smoke, referred to in WSBC OH&S Regulation, Part 4, prohibits smoking in enclosed workplaces, except in areas which may be designated by the employer for that purpose if the employer so chooses.

Designated areas will be:

- PG Truck Shop - Outside
- FSJ Shop - Outside
- Leo Creek Camp – Designated Areas to be determined
- Bush – Designated Areas to be determined

EFFECTIVE DATE:
HISTORY:

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